Healthy Woman



# A Complete Guide for all Ages

Easy to understand information from the Nation's leaders in women's health



U.S. Department of Health and Human Services, Office on Women's Health



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A Complete Guide for all Ages



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#### **About OWH**

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### **Foreword**



A few years back I was at my doctor's office, talking with the nurse, asking for some advice. She told me "listen to your body."

I sat there and stared at her. I understood the words but I had no idea what she was talking about. "I don't listen to my body," I joked. "I tell my body what to do!" We both laughed but I was serious.

I always felt my body was something to be pushed and prodded into shape, deprived of sleep if necessary, deprived of food if I wanted to fit into a slinky dress. But here was a nurse telling me to be kind to my body. Listen to it. Follow its lead. Let it decide—not just my brain.

It took me a long time to really get it: that my body is me. That it's the only one I have. That it won't last forever. And that, by listening to my body, I can learn how to protect it, strengthen it and, most of all, enjoy it, delight in it.

That's what this book is all about. Straight-ahead information on the things we can do to stay healthy, tests we should get to monitor our health, how to cope with disease, and how to talk with our doctors. Simply put, how to take charge of our own health.

It's the book I wish I'd had on a sunny day in October, 1999, when I sat in another doctor's office, pen and notebook in hand, and heard him tell me I had breast cancer. After years of working as a CNN correspondent, reporting on civil wars and political upheaval, I thought I was ready for the news. I would just jot the information down, do some research, find treatment and get on with my life.

I could hardly hold the pen. My hand shook. My heart was beating out of my chest.

Later that day, a bit calmer, I began to search for information on breast cancer. Even though my doctor was very helpful and began mapping out possible treatment strategies, I knew that, ultimately, I was the one who would have to decide which options to pursue and for that I needed information. I went to the bookstore but one look at the rows and rows of books on every conceivable aspect of health and cancer completely overwhelmed me.

On the Internet it was even more confusing. Literally hundreds of millions of hits and links to different Web sites, with no guarantee that the information you find is trustworthy. What I needed was a guide, just like this one, written and reviewed by experts who know what they are talking about.

My experience taught me so much more than the details of cancer. I learned that I had a right, a responsibility to myself, to find the best doctors I could. If I could "shop 'til you drop" for a pair of shoes, I could shop 'til I dropped to find the doctor I trusted, a doctor who treated me like an adult, who respected me and my opinions. I got a second opinion...and even a third opinion. I almost gave up but you know what? The last doctor I saw was absolutely the one I had dreamed of finding, who was positive and fun and made me feel that, ultimately, I would be alright.

I was lucky because the person I loved was there with me all the way but I also learned that, even if I weren't so lucky, I didn't have to face things alone. I joined a breast cancer support group and some of my best memories are of the six of us, all with bald heads—sporting baseball caps, bandanas or wigs—finding ways to laugh together, even during some of our darkest days.

Finally, I learned that that nurse was right; I really should "listen to my body." If I really love myself and want to live a healthy life—physically and mentally—there are things I can do to help make that happen. Sure, I don't always want to get a mammogram and yes, I don't always want to make time for physical activity. And, yes, there are things I sometimes am afraid to discuss with my doctor. But I can tell you from my own experience: there is nothing more empowering than being in control of decisions about my health. And, I am happy to say, there is nothing more fabulous than being a healthy woman!

Jill Dougherty
U.S. Affairs Editor
CNN International

### Taking Charge of Your Health

Have you ever walked out of your doctor's office after a visit confused about what she or he just told you? If your answer is yes, you are not alone. Health issues can be complex and hard to understand.

At the same time, it seems that we are being asked to do more and more to improve our health. There are almost daily news reports about advice on eating certain foods or exercising to prevent certain diseases. Keeping track of all this information can seem overwhelming. And the sometimes conflicting advice clouds our understanding even more. Plus, if you have a family, you are likely making health choices not only for yourself, but also for them!

Although the matter of health can be challenging, there are ways to make it easier. To start, it is important to learn about the things you can and can't control.

### Understanding risk factors: Learning what you can and can't control

Part of learning how to take charge of your health involves understanding your "risk factors" for different diseases. Risk factors are things in your life that increase your chances of getting a certain disease.

Some risk factors are beyond your control. You may be born with them or exposed to them through no fault of your own. Risk factors that you have little or no control over include your:

- family history of a disease
- sex



- ancestry
- age
- health having one health problem may raise your risk of having another (for instance, having diabetes increases your chances of getting heart disease)

Risk factors you can control include:

- what you eat
- how much physical activity you get
- whether you use tobacco
- how much alcohol you drink
- whether you use illegal drugs
- whether or not you use your seatbelt

In fact, it has been estimated that almost 35 percent of all U.S. early deaths in 2000 could have been avoided by changing just three behaviors:

· stopping smoking

- eating a healthy diet (for example, eating more fruits and vegetables and less red meat)
- · getting more physical activity

#### Having more than one risk factor

You can have one risk factor for a disease or you can have many. The more risk factors you have, the more likely you are to get the disease.

One doctor has suggested thinking of multiple risk factors for a disease in terms of your chances of breaking a leg when leaving a building. If you're a healthy person and don't have any risk factors for, say, heart disease, it's like leaving the building on the ground floor. In this case, your chances of breaking a leg are very small.

But let's say you have one risk factor for heart disease: diabetes. Now it's like leaving the building by jumping from the second floor. Your chances of breaking a leg are now greater. If you also have another risk factor, such as high blood pressure, it's like jumping from the third floor. If you also smoke tobacco, now you're jumping from the fourth floor.

To lower your risks, all you have to do is come down the stairs. In the case of heart disease, that means taking steps such as quitting smoking and controlling your blood pressure through healthy eating, physical activity, and taking medications.

### Inheriting risk – your family health history

Rarely, you can inherit a gene that alone causes you to get a disease. Genes control chemical reactions in our bodies. If you inherit a faulty gene, your body may not

be able to carry out an important chemical reaction. For instance, a faulty gene may make your blood unable to clot. This problem is at the root of a rare bleeding disorder.

More often, you can inherit genes from one or both of your parents that put you at higher risk for certain diseases. But having a gene for a certain disease does not mean you will get it. There are many unknown factors that may raise or lower your chances of getting the disease.

You can't change your genes, but you can change behaviors that affect your health, such as smoking, inactivity, and poor eating habits. People with a family health history of chronic disease may have the most to gain from making lifestyle changes. In many cases, making these changes can reduce your risk of disease even if the disease runs in your family.

Another change you can make is to have screening tests, such as mammograms and colorectal cancer screening. These screening tests help detect disease early. People who have a family health history of a chronic disease may benefit the most from screening tests that look for risk factors or early signs of disease. Finding disease early, before symptoms appear, can mean better health in the long run.

#### How do I find out my disease risks?

It is important to talk to your doctor or nurse about your individual health risks, even if you have to bring it up yourself. And it's important for your doctor to know not just about your health, but your family health history as well. Come to health care visits armed with information about you, your children, siblings, parents, grandparents, aunts and uncles, and nieces and nephews, including:

- Major medical conditions and causes of death
- · Age of disease onset and age at death
- Ethnic background
- General lifestyle information like heavy drinking and smoking

Your doctor or health professional will assess your risk of disease based on your family health history and other risk factors. He or she may also recommend things you can do to help prevent disease, such as exercising more, changing your diet or using screening tests to detect disease early.

There are also web sites that can help you calculate your risks of getting certain diseases, some of which are listed on page 426 of the appendix. These online tools should never replace the information from or advice of a doctor or nurse.

#### How this book can help you

In this book, we discuss the risk factors for major diseases that affect women—both those that you can control and those you can't. If it is possible to control a risk factor to lower your chances of getting a disease, we will tell you how. We will also discuss diseases for which causes and risk factors are not yet understood.

This book also explains:

What happens to your body with certain diseases.

- Tips for handling many diseases and health conditions.
- How to stay healthy during key phases of your life, such as during pregnancy and menopause.
- How to communicate with doctors and nurses.
- The screenings, tests, and immunizations women need.
- Where to find more health information that you can trust.

In each chapter, besides important health tips, you will also find personal stories from women across the country. You may find that some of their experiences are similar to what you may be going through. Hopefully, these stories will show you that you are not alone.

### How this book can help you help your family

As you learn about diseases that affect women, you will learn how to improve your family's health as well. Diseases such as heart disease, cancer, and stroke can, of course, affect men as well as women. Steps you can take to reduce your chances of getting these diseases can also apply to the men in your life. And since heart disease may start as early as childhood due to poor eating habits and lack of physical activity, your efforts may help your children lead longer and healthier lives.

What you do today counts—for you and your loved ones. Take charge of your health! ■





## Stroke

If you are having a stroke, you need to be taken to the hospital right away. Thankfully, there are stroke treatments that can increase your chances of walking away from an attack with few or no disabilities. But you have to get these treatments within three hours from the start of your symptoms for them to work. Be aware of the signs of stroke so you can help yourself or someone else get vital treatment.

#### What is a stroke?

A stroke occurs when part of your brain doesn't get the blood that it needs. A stroke is sometimes called a "brain attack." This is because, like a heart attack, a stroke involves the loss of blood flow, leading to the death of cells. In fact, without blood, your brain cells start to die within minutes.

There are two types of stroke:

 Ischemic (i-SKEE-meek) stroke— When a blood vessel bringing blood to the brain becomes blocked. For instance, a blood clot may form within

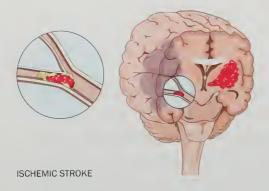


#### What are the symptoms of a stroke?

A stroke happens fast. The most common signs of a stroke are sudden:

- numbness or weakness of the face, arm, or leg, especially on one side of the body
- trouble seeing in one or both eyes
- trouble walking, dizziness, or loss of balance or coordination
- · confusion or trouble speaking or understanding
- severe headache with no known cause

If you have any of these symptoms or see anyone with these symptoms, call 911 right away. Every minute counts!



the heart or an artery in the neck. The clot is carried by the blood to the brain, where it gets stuck in a smaller artery. There, it cuts off blood flow to a part of the brain. About 80 percent of strokes are ischemic strokes.

 Hemorrhagic (hem-er-RAJ-ik) stroke—When a blood vessel in or on the surface of the brain breaks open. As a result, blood flows into the wrong areas. This blood, which would normally supply brains cells with oxygen and nutrients, can no longer get to these cells. Also, this blood in the wrong areas puts pressure on nearby brain cells. For both of these reasons, brain cells die. In an intracerebral (intruh-sah-REE-bruhl) hemorrhage, the blood flows into the brain itself. In a subarachnoid (suhb-uh-RAK-noid) hemorrhage, the blood flows into a thin space outside the brain but still inside the skull. About 20 percent of strokes are hemorrhagic strokes.

If you're having a stroke, you may not be able to call 911. In fact, you may not even be able to move or talk! In most stroke cases, it's a family member, coworker, or other bystander who calls 911. That's why everyone should become familiar with the signs of a stroke.

#### What is a "mini-stroke?"

If you have signs of a stroke that don't last long, you've had what is called a transient ischemic attack (TIA), or "mini-stroke." TIAs typically last from 5 to 15 minutes, with no lasting symptoms. They are often caused by a blood clot getting stuck in a brain artery for a short time but then breaking up, allowing the blood to flow freely again. If your symptoms last longer than 24 hours, then you've had a major stroke rather than a TIA.

If you're having stroke symptoms, there's no way of knowing whether you're having a TIA or a major stroke. You should still call 911 as soon as possible.

Even a "mini-stroke" is considered a stroke and needs treatment. A TIA is often a sign that you may have a major stroke in the near future—perhaps in the next few days. Your doctor may prescribe medicines or surgery that may help you



avoid having a major stroke that could cause lasting damage.

Your doctor may give you aspirin or some other drug to reduce blood clotting. Your doctor may also recommend a type of surgery called carotid endarterectomy (kuh-ROT-id en-dahr-tuh-REK-tuh-mee). In this procedure, the carotid artery in the neck is opened up and plaque is removed from the artery walls. This allows the blood to flow more freely in the artery and reduces the chances of a clot forming.

Another way to open a clogged carotid artery is to insert a stent. A stent is a tiny, slender metal-mesh tube that can be expanded to keep an artery open. A stent placed in a carotid artery is very similar to a stent placed in an artery in the heart for treating coronary artery disease (See page 31 of the *Heart Disease* chapter for more information on stents).



CAROTID ARTERY: THE MAIN NECK ARTERY SUPPLYING BLOOD TO THE BRAIN. BLOCKAGE OF THIS ARTERY IS THE LEADING CAUSE OF STROKE.

#### Who is at risk for having a stroke?

While anyone can have a stroke, some people are at higher risk than others. You have no control over some risk factors for stroke, such as your age or sex. But there are many risk factors that you can change or control, such as high blood pressure or cigarette smoking.

Stroke and heart disease share many of the same risk factors. The good news is that 80 percent of strokes can be prevented by changing or controlling certain risk factors.

#### Stroke risk factors that you cannot change

**Previous stroke.** Having had a previous stroke is the biggest risk factor for suffering another stroke.

**Age.** For every decade after the age of 55, your stroke risk doubles.

Sex. If you consider all ages, men are more likely to have strokes than women. But between the ages of 45 and 64, women are more likely to have strokes than men. This is likely because blood pressure and cholesterol levels rise more quickly in women than men during this period. High blood pressure and poor cholesterol levels are both risk factors for stroke.

**Menopause.** The risk of stroke increases after menopause.

Race. African-Americans are more likely to have a stroke than other people. This is partly because African-Americans are more likely to have certain risk factors, such as high blood pressure and diabetes.

Stroke family history. If stroke runs in your family, it may be because your

family carries genes that increase your chances of having a stroke. An example would be genes that increase your chances of forming a blood clot. Or it may be that your family has a lifestyle that increases your chances of having a stroke. For example, your family may eat a diet high in saturated fats.

Stroke risk factors that you can change High blood pressure. High blood pressure is the biggest risk factor for stroke. In fact, it increases your chances of having a stroke by four to six times.

For information on risk factors for heart disease, see the *Heart Disease* chapter on page 15.

Heart disease. The second biggest risk factor for stroke is heart disease, especially a disease called atrial fibrillation (Fib-RIL-ay-shun). In atrial fibrillation, the upper chambers of the heart beat faster and more irregularly than the rest of



the heart. As a result, blood doesn't flow through these chambers correctly and can clot. A clot may then dislodge and travel up to the brain, where it can cause an ischemic stroke.

Blood cholesterol levels. High LDL (bad) cholesterol and low HDL (good) cholesterol levels increase your risk for stroke. They do this by causing the buildup of plaque.

#### **Plaque and Atherosclerosis**

Plaque is a fatty substance that builds up in the walls of arteries. Plaque is made up largely of cholesterol and fat. The narrowing and hardening of arteries caused by plaque build up is called atherosclerosis (A-thuh-roh-skluh-ROH-siss).

Cigarette smoking. Cigarette smoking has been linked to plaque buildup in the carotid artery. Other ways that cigarette smoking increases your stroke risk include:

- the nicotine in cigarettes raises blood pressure
- carbon monoxide from smoking reduces the amount of oxygen your blood can carry to the brain
- cigarette smoke makes your blood thicker and more likely to clot

Your doctor can recommend programs and medications that may help you quit smoking.

Obesity. Postmenopausal women with a waist size larger than 35 inches and a high triglyceride, or blood fat, level have five times the risk of having a stroke. Diabetes. Diabetes is a disease in which the blood sugar, or glucose, level becomes too high. Diabetes damages blood vessels throughout the body, including the brain. As a result, diabetes triples the risk for stroke. If the blood glucose level is high at the time of a stroke, brain damage is usually more severe than if the level is normal. Treating diabetes can delay the onset of blood vessel changes that increase stroke risk.

For information on treating diabetes, see the *Type 2 Diabetes* chapter on page 69.

Heavy alcohol use, illegal drug use. For women, more than one alcoholic drink per day raises stroke risk. Cocaine use is a common cause of hemorrhagic stroke in young people. Long-term marijuana smoking may also be a risk factor for stroke.

Pregnancy. On rare occasions, pregnancy can cause stroke, especially in the few months after delivery. Pregnancy increases blood pressure and clots are more easily formed.

Birth control pills or patch. Taking birth control pills or using the birth control patch is generally safe for young, healthy women. With the pill, stroke risk is greater for women who also smoke cigarettes or have migraines with aura (extreme headaches with a visual disturbance).

With the patch, the stroke risk is greater for women who also smoke cigarettes. Research has not yet shown whether women who have migraines with aura



also have an increased risk of stroke when using the patch. If you get this type of headache, tell your doctor when discussing your birth control options.

For an important warning on birth control pills and the patch and stroke and heart attack risks, see page 162 of the *Reproductive Health* chapter. For information on migraine headaches, see page 359 of the *Women and Pain* chapter.

#### Menopausal hormone therapy.

Menopausal hormone therapy can increase stroke risk. If you use menopausal hormone therapy, you should take it at the lowest possible dose and for the shortest amount of time. Work with your doctor to come up with a plan that works best for you.

For information on menopausal hormone therapy and the risks of stroke and heart attack, see page 28 of the *Heart Disease* chapter.

Brain aneurysm. An aneurysm (AN-yuh-riz-uhm) is a bulge that forms at a weak spot in an artery wall. Because most brain aneurysms look like a berry hanging from a vine, they are often called "berry" aneurysms. Most aneurysms occur in arteries on the brain's surface. You can have a brain aneurysm for years and not have any symptoms. But sometimes the aneurysm bursts, and blood flows into the space outside the brain. The result is a subarachnoid hemorrhage, a type of hemorrhagic stroke. (see page 38 to learn more.)

Symptoms of aneurysm may include:

- pain above and behind the eye
- numbness or weakness on one side of the face
- problems seeing (such as double vision)

Call your doctor if you have these symptoms. Large aneurysms can often be treated to prevent them from bursting.



#### **Preventing stroke**

At some point, 39 percent of women in the United States will develop heart disease, stroke or other diseases involving narrowing or hardening of the arteries. It is important for all women to pay attention to their risk factors for these diseases. The most important things you can do to reduce your chances of stroke are:

- · treat high blood pressure
- don't smoke cigarettes
- maintain an active lifestyle

If you have high blood pressure, you may be able to lower it by:

- losing weight if you are overweight or obese
- getting 30 minutes of moderate-intensity physical activity on most days of the week
- · limiting alcohol to one drink per day
- eating foods that are good for your heart
- reducing stress

Your doctor may prescribe medicines to lower your blood pressure. It is important to take them as prescribed and not stop them unless directed by your doctor.

Some research suggests that healthy women over age 65 may reduce their stroke risk by taking 80 mg aspirin, or baby aspirin, daily. Aspirin makes blood clots less likely, which reduces the risk of an ischemic stroke. But aspirin can have serious side effects, such as bleeding in your stomach or intestines. If you're thinking about taking aspirin, talk with your doctor first.

#### **Choosing a hospital**

The hospital you go to can matter a great deal. You have a better chance of having a good outcome if you are taken to a certified stroke center at a hospital with the staff, equipment, and experience needed to treat stroke quickly and correctly.

#### **Stroke Centers**

To find a certified stroke center near you, see the web sites of the Joint Commission on the Accreditation of Healthcare Organizations and the National Stroke Association, listed at the end under "For more information."

As of August 2007, the following states have developed or are in the process of developing their own regulations for certifying hospitals as stroke centers:

- Florida
- Maryland
- Massachusetts
- New Jersey
- · New York
- Texas

If you live in these states, call your state health department to find out if there is a state-certified stroke center near you.



Find the nearest certified stroke center, and share the name and address with your family or caregivers. Tell them that if you have a stroke, you want to be taken to that hospital. Even if you live in a rural area, you might be able to be taken to a certified stroke center by helicopter.

#### How is a stroke diagnosed?

Once you get to the hospital, the following things will happen quickly:

- A doctor or nurse will ask you or your companion about your symptoms and when they began.
- You will be asked to perform several physical and mental tasks to see what parts of your brain might be affected by the stroke.
- You will be given various tests to rule out other possible causes of your symptoms.

If your doctor decides that you may have had a stroke, the next step will be to use one or more brain imaging techniques to see where the stroke is located. The two main techniques are computed tomography (CT) and magnetic resonance imaging (MRI). A CT scan is more commonly used because it is faster and more readily available in most hospitals.

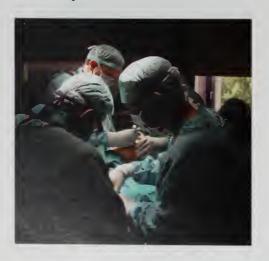
#### How is stroke treated?

If your brain scan shows that you've had an ischemic stroke, you may be given a shot of tissue plasminogen (plaz-MIN-uh-juhn) activator, or t-PA, into one of your veins. This drug travels in the blood to the brain and breaks up the clot. T-PA must be given within three hours from the time your stroke started for it

to work properly and safely. In fact, the sooner t-PA is given, the better it works. That's why it's important for you to get to the hospital as quickly as possible.

A new therapy for ischemic strokes is the Mechanical Embolus Removal for Cerebral Ischemia (MERCI) system. This involves threading a thin wire through your blood vessels and into the artery in the brain that is blocked by a clot. The wire is used to pull the clot out of the body. The MERCI system can be used for up to eight hours after the start of an ischemic stroke.

There are fewer treatments for intracerebral hemorrhages (bleeding into the brain) than for ischemic strokes. Usually, little can be done to stop the bleeding. But treatment usually involves trying to reduce pressure within the skull caused by bleeding with drugs or surgery. Research suggests that a new drug, called activated factor VII, can slow the bleeding if given within four hours of when it started. But this drug is still being tested and is not yet available for use in hospitals.



If you have a subarachnoid hemorrhage due to a burst aneurysm, brain surgery will be needed to stop the bleeding from the aneurysm.

#### Stroke Treatment Research

Much progress in stroke treatment has been made over the past decade. And many new treatments are in the final stages of testing and likely to be available for widespread use in the next few years. Not long ago, doctors considered stroke an untreatable disease, but no more. The future of stroke treatment is looking brighter.

#### The effects of a stroke

After a stroke, you may have problems caused by damage to parts of your brain. What problems you have depend on which parts of your brain were damaged. Some of the problems that you may have after a stroke include:

- Movement. You may have problems moving an arm, a leg, part of your face, or the entire side of your body. You may also have problems swallowing.
- Sensations. You may lose the ability to feel touch, pain, temperature, or position. Or you may experience pain or odd sensations of tingling or prickling.
- Language. You may have problems speaking, writing, or understanding spoken or written words.
- Thinking and memory. You may have a very short attention span or have trouble remembering something you just learned. Or you may lose the ability to plan and carry out steps in a complex task.



• Emotions. The most common emotional problem faced by stroke survivors is depression. If you have depression, it's important that you get treatment (see below for information on treating depression). Another common problem among stroke survivors is pseudobulbar (soo-doe-BUHL-bar) affect. If you have this condition, you might laugh or cry at inappropriate times. For instance, you might laugh at a sad story or cry for no reason. Because a person with pseudobulbar affect may cry uncontrollably, the condition is often mistaken for depression.

#### Therapies for stroke recovery

In the first several months after a stroke, some of the abilities that you lost may return on their own, but others may not. The good news is that there are therapies that can help you recover functions or learn new ways of doing things. The more you work at these therapies, the more likely you will be to recover many

of your abilities. Also, there seems to be no time limit for recovering. Research shows that some people who have had a stroke may keep recovering for years after the stroke.

There are many different types of therapies used to help stroke patients lead independent lives.

- Physical therapy helps you relearn simple movements, such as walking, sitting, standing, and lying down.
- Occupational therapy helps you relearn everyday activities, such as eating, drinking, dressing, and going to the bathroom.
- Speech therapy helps you relearn how to speak and use language. Speech therapists can also help if you're having trouble swallowing.
- Psychotherapy helps you deal with your emotional problems. Depression, for instance, can be treated with a combination of medicines and counseling.



Research is leading to exciting new techniques to help stroke survivors. For instance, experts are developing robotic braces that fit over one or more joints and help you relearn movements.

Most stroke survivors find that regaining lost abilities is hard work. It is normal to feel tired and discouraged at times because things that used to be easy are now difficult. The important thing is to notice the progress you make and take pride in each achievement.

#### How family members can help

If you are a family member of a stroke survivor, here are some things you can do:

- Support your loved one's efforts to help make decisions about their therapies.
- Encourage them to be as independent as possible.
- Strive to be compassionate, patient, positive, tolerant, and respectful.
- Visit and talk with your loved one. Do things together, such as playing cards or a board game.
- Participate in education offered for stroke survivors and their families.
- Ask physical and occupational therapists how to outfit your home for the stroke survivor. For instance, you may



need to install grab bars in the bathroom to help your loved one use the toilet, tub, or shower.

- If your loved one has trouble speaking or understanding speech, ask the speech therapist how you can help.
- To prevent bedsores, make sure your loved one does not sit or lie in the same position for long periods of time.
- Take care of yourself by eating well, getting enough rest, and taking time to do things that you enjoy.

Perhaps most importantly, remember that caring family and friends can be a key factor in helping stroke survivors recover.

### One Woman's Story

I was 5 months pregnant and 36-years-old at the time, casually talking on the phone when suddenly my right side became paralyzed and I lost my ability to speak. I began crawling on my hands and knees, motioning to my older daughter for help. Ten-year-old Chelsea knew her mom was in serious trouble and called 9-1-1 right away.

When I arrived at the hospital, I was paralyzed on the right side of my body and could not talk. My husband described me as being "in a vegetative state" and the doctors discussed nursing home placement. I remained in the hospital for five days and was then transferred to another facility for rehabilitation.

I was determined to regain function and soon, I was doing exercises to strengthen my hand and arms. I had to learn how to change a baby diaper and bathe a baby using only one hand. I progressed to walking just three days after being discharged home and by the seventh day, I had regained my speech.

I had thought I was in good health. Yet, prior to getting pregnant, I sought an evaluation from my doctor for some frightening symptoms: my right arm would become numb for a short period of time or I would experience "pins and needles." Sometimes I would have

As an African
American woman, I
was also at a higher
risk for stroke.

vision changes. Sometimes I could not speak. But these symptoms would only last a short time before everything would return to normal. I now know that I had been experiencing TIAs, which often serve as warning signs for an impending stroke. My original doctor did not order testing and I was forced to change doctors to get the care I needed. My new doctor's tests all came back negative and I received the "ok" to get pregnant.

I learned that while stroke is uncommon in pregnancy, it does happen. I also had high blood pressure during the pregnancy, which is a risk factor for stroke. As an African American woman, I was also at a higher risk for stroke.

My baby is fine. I have a healthy son. I can once again care for my family. After my recovery, my mission became to raise awareness of stroke symptoms, not just as a survivor and mom, but as Mrs. New Jersey 2002—winner of the state beauty pageant!

Cynthia

#### **New Jersey**

\* This story is provided courtesy of the Women's Heart Foundation

#### For More Information...

### Office on Women's Health, Department of Health and Human Services

200 Independence Ave, SW, Room 712E Washington, DC 20201

Web site: www.womenshealth.gov/heart www.womenshealth.gov/faq/stroke.htm Phone number: (800) 994-9662, (888) 220-5446 (TDD)

### National Heart, Lung, and Blood Institute Information Center, NIH

PO Box 30105 Bethesda, MD 20824-0105 Web site: www.nhlbi.nih.gov, www.hearttruth.gov Phone number: (301) 592-8573, (240) 629-3255 TTY

### National Institute of Neurological Disorders and Stroke, NIH

PO Box 5801 Bethesda, MD 20824 Web site: www.ninds.nih.gov Phone number: (800) 352-9424

#### **American Stroke Association**

7272 Greenville Ave Dallas, TX 75231

Web site: www.strokeassociation.org Phone number: (888) 478-7653

#### The Internet Stroke Center

Washington University School of Medicine Department of Neurology 660 S Euclid, Box 8111 St Louis, MO 63110 Web site: www.strokecenter.org

#### **National Stroke Association**

9707 E Easter Ln Bldg B Centennial, CO 80112 Web site: www.stroke.org Phone number: (800) 787-6537

To find a stroke center near you, visit:

### The Joint Commission on the Accreditation of Healthcare Organizations

www.jointcommission.org/ CertificationPrograms/Disease-SpecificCare/DSCOrgs/default.htm

On this page, choose your state and "Primary Stroke Center" from the drop-down menus.





# Type 2 Diabetes

Type 2 diabetes (dy-uh-BEE-teez), formerly called adult-onset diabetes, is the most common type of diabetes. About 9 out of 10 people diagnosed with diabetes have type 2 diabetes. About 9.7 million women in the United States have diabetes. People can develop type 2 diabetes at any age, even during childhood or adolescence.

The good news is that doctors know a lot about managing diabetes. You can lead a long and healthy life with diabetes. Getting treatment and taking care of yourself can help prevent health problems. In fact, your doctor will want you to take an active part in your diabetes care.

#### What is diabetes?

Diabetes is a disorder of metabolism—the way your body uses digested food for growth and energy. Much of the food you eat is broken down into glucose, the form of sugar in the blood. Glucose is the main source of fuel for your body.

After digestion, glucose enters your bloodstream. Then glucose goes to your body's cells to be used for energy. For glucose to get into your cells, insulin (IN-soo-lihn) must be present. Insulin is a hormone produced by your pancreas (PAN-kree-uhss), a large gland behind your stomach.

When you eat, your pancreas automatically produces the right amount of insulin to move glucose from blood into your





cells. But if you have type 2 diabetes, your body's system for producing energy doesn't work correctly. One or both of the following things can happen:

- Your cells don't respond properly to your own insulin, a condition called insulin resistance.
- Your pancreas makes little or no insulin.

As a result, glucose builds up in your blood and passes out of your body in your urine. Your body loses its main source of fuel even though your blood contains large amounts of glucose.

You could have type 2 diabetes and not know it. In fact, sometimes type 2 diabetes has no warning signs at all.

- Of the 1.3 million women aged 18 to 44 years of age with diabetes, one-half million don't know they have it.
- Of the four million women aged 65 years and older with diabetes, one million don't know they have it.

Another form of diabetes, type 1 diabetes, formerly called juvenile diabetes or insulin-dependent diabetes, is usually first diagnosed in children, teenagers, or young adults. In type 1 diabetes, cells in the pancreas no longer make insulin because the body's immune system has attacked and destroyed them. People with type 1 diabetes must take insulin by injection or with an insulin pump.

#### **Know your risk for type 2 diabetes**

The following factors put you at risk for type 2 diabetes. Some of these factors are not under your control. But you can control a number of the risk factors and lower your chances of getting type 2 diabetes. To learn your risk for type 2 diabetes, place a check beside each item that applies to you. Then show this list to your doctor and ask whether you should be tested for diabetes.

#### **Risk Factors You Can't Control**

- ☐ I am age 45 or older.
- ☐ My family background is African American, American Indian/Alaska Native, Hispanic/Latina, Asian American, or Pacific Islander.\*
- ☐ I have had gestational (jess-TAY-shuhn-uhl) diabetes\*\*, or I gave birth to a baby weighing more than 9 pounds.
- ☐ I have a parent, brother, or sister with diabetes.
- ☐ I have polycystic (POL-ee-SISS-tik) ovary syndrome, also called PCOS.
- ☐ I have had blood vessel problems affecting my heart, brain, or legs.

#### **Risk Factors You Can Control**

- Index chart on page 22 to find out).
- ☐ I am fairly inactive. I exercise fewer than 3 times a week.
- ☐ My blood pressure is 140/90 mmHg or higher, or I have been told that I have high blood pressure.
- ☐ My cholesterol (koh-LESS-tur-ol) levels are not normal. My HDL ("good") cholesterol is below 35 mg/dL, and/or my triglyceride level is above 250 mg/dL.
- → I have been told that I have higher than normal blood glucose levels, also called pre-diabetes, impaired glucose tolerance, or impaired fasting glucose.
- ☐ The skin around my neck or in my armpits looks dark, thick, and velvety, a skin condition associated with insulin resistance called acanthosis (ak-an-THOH-siss) nigricans (NIG-rih-kanz).
- ☐ I have blood vessel problems affecting my heart, brain, or legs.

\*If you're an African American, Hispanic/ Latina, American Indian/Alaska Native, Asian American, or Pacific Islander woman, you're more than twice as likely as a Caucasian woman to get type 2 diabetes.

#### What is gestational diabetes?

Gestational diabetes is a type of diabetes that first develops during pregnancy and usually disappears upon delivery. It increases the mother's risk of developing diabetes later in life. For more information about how it is diagnosed and treated, see the Pregnancy chapter on page 161.

#### What is metabolic (METuh-BOL-ik) syndrome (SINdrohm)?

Metabolic syndrome is a group of conditions that increases your risk of developing type 2 diabetes, heart disease, or a stroke. If you have any three of the following five conditions, you have metabolic syndrome, also called insulin resistance syndrome.

- · A large waistline: 35 inches or more
- High triglyceride levels: 150 mg/dL or above
- Low HDL cholesterol levels: below 50 mg/dL
- High blood pressure levels: 130/85 mmHg or higher
- Above-normal fasting blood glucose levels: 100 mg/dL or above

### Preventing or delaying type 2 diabetes

A major research study has shown that type 2 diabetes can be prevented or delayed in people at high-risk for diabetes, including women with a history of gestational diabetes. People who participated in the study

- · lowered their intake of fat and calories
- exercised about 30 minutes a day, five days a week

These efforts resulted in a modest weight loss and prevented or delayed diabetes. If you are at risk for diabetes, making these same lifestyle changes to help prevent or delay diabetes is important.

#### Warning signs of type 2 diabetes

You might have no warning signs at all. Or you might have these signs:

- · Increased thirst
- Increased hunger
- Fatigue
- · Increased urination, especially at night
- Weight loss
- Blurred vision
- · Sores that don't heal
- Tingling or numb feet or hands

#### Diagnosing type 2 diabetes

Your doctor can use any of the following ways to diagnose type 2 diabetes:

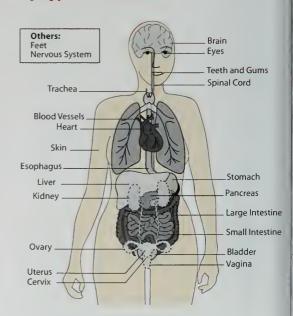
- A fasting plasma glucose test measures your blood glucose level after you have gone at least 8 hours without eating. Experts recommend this test for diagnosis.
- An oral glucose tolerance test measures your blood glucose level after you have gone at least 8 hours without eating and 2 hours after you drink a glucose-containing beverage.
- In a random plasma glucose test, your doctor checks your blood glucose level at any time of the day without regard to when you last ate. Your doctor will also ask about signs and symptoms of diabetes.

If the results of any of these tests show you have diabetes, your doctor will confirm the results by testing you again on a different day.

#### **Health effects of type 2 diabetes**

Over time, high blood glucose levels can lead to serious health problems with your eyes, kidneys, nervous system, feet, skin, teeth, and gums. But the most serious problems, especially for women with diabetes, are problems with the heart and blood vessels. Such problems can lead to heart disease, heart attacks, and strokes. Diabetes is a more common cause of heart disease in women than in men. When heart disease occurs in women with diabetes, the damage can be worse than it is in men with diabetes.4 The good news is that you can prevent or delay serious problems by taking care of your health.

### Body Parts that can be Affected by Type 2 Diabetes



TYPE 2 DIABETES CAN AFFECT MANY PARTS OF YOUR BODY. BUT YOU CAN DO A LOT TO TAKE CARE OF YOURSELF AND PREVENT HEALTH PROBLEMS.

#### Fasting\* Blood Glucose Numbers (mg/dL) and What They Mean

Blood glucose numbers	What they mean
From 70 to 99	Normal
From 100 to 125	Pre-diabetes, also called impaired fasting glucose
126 and above on more than one test	Diabetes

<sup>\*</sup>Note: Fasting means not eating or drinking for at least 8 hours.

Urinary tract infections	<ul> <li>You might have an increased risk of urinary tract infections (See the Urologic and Kidney Health chapter on page 251)</li> </ul>
Bladder problems	You might have an increased risk of urinary incontinence (See the UUro- logic and Kidney Health chapter on page 251)
Fungus or yeast Infections	If you are overweight and have high blood glucose levels, you might be at increased risk for fungus or yeast infections. These infections can occur in the vagina and genital area, under the breasts, or under skin folds.
Menstrual cycle	Changes in your hormone levels before, during, and after your menstrual cycle can affect your blood glucose levels. Talk with your doctor about how to adjust your medicines and meal plan to keep your blood glucose levels on target.
Birth control	Talk with your doctor about which birth control method would be best for you (See the Reproductive Health chapter on page 153)
Sexual dysfunction	You might experience decreased sexual desire, trouble becoming aroused or having an orgasm, or pain during intercourse.
Pregnancy	Meet with your doctor several months before you try to get pregnant. Your doctor can help you make a plan for getting your blood glucose on target before conception.
	Keeping your blood glucose as close to normal as possible before you get pregnant and during your pregnancy is the most important thing you can do to stay healthy and have a healthy baby. (See the <i>Pregnancy</i> chapter on page 169)
Breastfeeding	Breastfeeding is highly recommended for the babies of women with diabetes (page) (See the <i>Breastfeeding</i> chapter on page 189)
Menopause	As you start to go into menopause, swings in hormone levels can lead to swings in blood glucose levels.
	Changes in hormone levels with menopause can lead to lower blood glucose levels. You might need lower doses of your diabetes medicine. (See the Healthy Aging chapter on page 223)

#### How to prevent or delay heart disease and other health problems

You can lower your chances of having heart disease and other health problems by managing the ABCs of diabetes.

Goals for the ABCs of Diabetes		
A is for the A1C blood glucose test. The result shows your average blood glucose level for the past 2 to 3 months.	Aim for less than 7 percent.     Your doctor may ask you to aim for less than 6 percent.  Ask your doctor what goal is best for you.  Write your goal here:	
B is for Blood pressure.	Aim for lower than 130/80 mmHg.	
C is for Cholesterol.	Aim for:     LDL cholesterol: less than 100 mg/dL     HDL cholesterol: more than 50 mg/dL     Triglycerides: less than 150 mg/dL	



### Questions to Ask Your Doctor about Your A1C Test Result

- What was the result of my latest A1C test?
- What does the result mean in terms of my risk for long-term health problems?
- What can I do to lower my risk for long-term health problems?

#### **Managing Diabetes**

Taking care of diabetes involves a team approach, involving you, your doctor, diabetes educator, nurse, dietitian, other health care providers, and other specialists as needed. You are an important part of the team because you will be making the decisions about your food, physical activity, and other important parts of your daily diabetes care.



## **Treatments for Type 2 Diabetes**

## Meal planning

- · Ask for a personalized meal plan, tailored to your daily routine, from a registered dietitian.
- Your dietitian can show you how to include your favorite foods in your meal plan.
- · Choosing sensible serving sizes will help keep your blood glucose levels on target.
- If you want to lose weight, your dietitian can design a meal plan to help you reach your goal.
- If you choose to drink alcoholic beverages, talk with your doctor about personalized guidelines. In general, most women with diabetes should limit themselves to one drink a day or less.

## Physical activity

- Before you start an exercise program, ask your doctor what kinds of exercise would be best for you.
- Moderate aerobic physical activity, at least three days a week, can help you reach your target blood glucose levels and your body weight goal, and lower your risk of heart and blood vessel disease.
- Resistance exercise, three times a week, is also recommended for women with type 2 diabetes.

#### Medicines

- There are three types of diabetes medicines: pills, insulin (taken by injection or with an insulin pump), and other injectable medicines.
- · You might need a combination of medicines to control your blood glucose levels.
- You also might need medicines for other medical conditions, such as high blood pressure
  or high cholesterol. Talk with your doctor about contraception methods.
- Ask your doctor whether you should take aspirin every day to prevent a heart attack or a stroke.

#### All about your blood glucose levels

Keeping blood glucose levels on target day-to-day will help you feel better and help delay or prevent long-term health problems. You can check your own blood glucose levels using a blood glucose meter. Your doctor or diabetes educator can show you how to use a meter. Goals for most women are shown below.

closer you get to your goals, the more you will lower your risk of health problems. Every step helps.

Blood glucose levels rise and fall many times during the day and night. The chart below can help you understand why. Remember—sometimes you won't be able to explain why your blood glucose is up or down.

Blood Glucose Targets for Most Women with Diabetes		
When Target levels		
Before meals 70 to 130 mg/dL		
1 to 2 hours after Less than 180		
the start of a meal mg/dL		

No one expects you to reach your blood glucose targets all of the time. But the



#### What Factors Make Blood Glucose Levels Rise or Fall?

## Reasons why blood glucose levels rise



- · Eating a meal or a snack
- · Eating more food or more carbohydrates than usual
- · Being physically inactive
- · Having an infection, surgery, injury, or being ill
- · Being under stress
- Having changes in hormone levels, such as during certain times in your menstrual cycle
- · Taking certain medicines (side effects)
- · Taking too little diabetes medicine or not taking your diabetes medicine

## Reasons why blood glucose levels fall



- · Missing or delaying a meal or a snack
- · Eating less food or fewer carbohydrates than usual
- · Being physically active
- · Drinking alcoholic beverages, especially on an empty stomach
- · Having changes in hormone levels, such as during menopause
- · Taking certain medicines (side effects)
- · Taking too much diabetes medicine

#### Low blood glucose

Low blood glucose, also called hypoglycemia (HY-poh-gly-SEE-mee-uh), happens when your blood glucose is too low to provide enough energy for your body's activities. Low blood glucose can make you feel shaky, nervous, sweaty, dizzy, or confused.

Low blood glucose can occur

- as a side effect of diabetes medicines that lower blood glucose levels
- · if you miss or delay a meal
- if you eat less than usual
- if you're more active than usual

Eating or drinking something with carbohydrate, such as glucose tablets or fruit juice, can bring your blood glucose level back to normal. Ask your doctor how to handle low blood glucose.



## **Keeping track of your health**

You and your health care team will work together to keep track of your health. During your office visits, you'll review your blood glucose records, talk about your medicines, meal plan, physical activity routine, and other concerns. You can use the following reminder list of diabetes check-ups and other things to do to make sure you get the best diabetes care.

## **Diabetes Check-ups**

- A1C test. Have this blood glucose test at least twice a year. Your result will tell you what your average blood glucose level was for the past 2 to 3 months.
- Blood pressure. Have your blood pressure checked every time you visit your doctor.
- Blood fat (lipid) lab tests. Get a blood test at least once a year to check your cholesterol and other blood fats. These test results will help you plan how to prevent heart disease, heart attack, and stroke.
- Kidney function tests. Get a urine test once a year to check for protein. Get a blood test at least once a year to measure the amount of creatinine (kree-AT-ih-neen). The results of these tests will tell you how well your kidneys are working.
- Dilated eye exam. See an eye care professional once a year for a complete eye exam.
- Dental exam. See your dentist twice a year for a cleaning and check-up.
- Foot exam. Ask your health care provider to check your feet at least once a year to make sure your foot nerves and your blood circulation are OK.
- Flu shot. Get a flu shot each year.
- Pneumonia vaccine. Get a pneumonia vaccine. If you're over 64 and your vaccine was more than 5 years ago, get another pneumonia vaccine.

Be sure to ask your doctor or diabetes educator if you have questions about what to do during these special times:

When you're ill. Illness can raise blood glucose levels. Your doctor may suggest you check your blood glucose levels more often at these times. Ask your doctor for other special instructions about taking your diabetes medicines when you're ill.

When you travel. When you travel, always carry the following with you:

- · Your diabetes medicines
- Your diabetes supplies for checking your blood glucose
- Food for snacks, a meal, and for treating low blood glucose

Never put your diabetes medicines or supplies in your checked baggage.

When you change time zones. If you'll be changing times zones, meet with your doctor or diabetes educator several weeks ahead of time to learn how to adjust your diabetes medicines, especially if you take insulin.



When you take a long car trip. If you take diabetes medicines that can cause low blood glucose, check your blood glucose before you drive to make sure it's in the normal range. Stop and check your blood glucose every 2 hours. If your blood glucose is low, eat or drink something. Low blood glucose can be very dangerous when you're driving because you can pass out.

#### **Diabetes and your emotions**

Sometimes having a chronic disease like type 2 diabetes leads to emotional upset. You might feel angry, afraid, guilty, or overwhelmed. It's normal to feel this way. Perhaps you're the one in your family who takes care of everyone else. Maybe you worry about how you'll have time to take care of yourself.

Serious depression, a medical condition that's more than feeling sad (see the *Mental Health* chapter on page 209), is common in women with diabetes.24 Depression can get in the way of taking care of yourself. If you're depressed, talk with your doctor. Treatment can help.

You can learn how to cope with having diabetes, manage stress, and find support. Share your concerns with your doctor.



Some women enjoy going to support groups where they can talk with others who have diabetes. Or you can get help from family and friends.

## **Paying for Diabetes Care**

If you're worried about the cost of your diabetes care and need financial assistance, ask your doctor for help in finding resources. Medicare helps pay for diabetes equipment, supplies, and other services. Call 1-800-MEDICARE for more information.

## Living well with type 2 diabetes

You can learn how to live a full and active life with diabetes. Taking care of yourself can help delay or prevent diabetes-related health problems. Your health care team can provide care and guidance during all of the stages of your life. ■

# One Woman's Story

Content embargoed until print.

## For More Information...

# Office on Women's Health, Department of Health and Human Services

200 Independence Ave, SW, Room 712E

Washington, DC 20201

Web site: www.womenshealth.gov/faq/

diabetes.htm

Phone number: (800) 994-9662,

(888) 220-5446 (TDD)

#### **Division of Diabetes Translation, CDC**

4770 Buford Highway NE, Mail Stop K-10

Atlanta, GA 30341-3717

Web site: www.cdc.gov/diabetes Phone number: (800) 232-4636

#### **National Diabetes Education Program**

One Diabetes Way

Bethesda, MD 20814-9692

Web site: www.ndep.nih.gov

Phone number: (888) 693-6337

#### **National Diabetes Information**

Clearinghouse, NIDDK, NIH

1 Information Way

Bethesda, MD 20892-3560

Web site: www.diabetes.niddk.nih.gov Phone number: (800) 860-8747

#### Office of Women's Health, FDA

5600 Fishers Ln

Rockville, MD 20857

Web site: www.fda.gov/WOMENS

"Take Time to Care About Diabetes" Web site: www.fda.gov/womens/

taketimetocare/diabetes

Phone number: (888) 463-6332

## American Association of Diabetes Educators

200 W Madison St, Suite 800

Chicago, IL 60606

Web site: www.diabeteseducator.org

Phone number: (800) 832-6874 to find a

diabetes educator

#### **American Diabetes Association**

1701 N Beauregard St

Alexandria, VA 22311

Web site: www.diabetes.org

Phone number: (800) 342-2383

#### **American Dietetic Association**

120 S Riverside Plaza, Suite 2000

Chicago, IL 60606-6995 Web site: www.eatright.org





# Sexually Transmitted Infections

You probably have heard of sexually transmitted infections (STIs)—also called sexually transmitted diseases, or STDs. But if you are like many women, you might not know that much about how STIs could impact your health. You might not think you need to worry about STIs. Yet, STIs are a major public health concern in the United States, where an estimated 19 million new infections occur each year. STIs affect people of all backgrounds and economic levels. And, women suffer more frequent and more serious complications from STIs than men. Thankfully, most STIs are preventable. Taking a few protective steps can lower your risk of getting an STI.

# What is a sexually transmitted infection (STI)?

A sexually transmitted infection (STI) is an infection you can get by having intimate sexual contact with someone who already has the infection. STIs can be caused by viruses, bacteria, and parasites. Many STIs have mild or no symptoms. So, you can have an STI and not even know it. Most STIs can be found by simple tests, but routine testing is not widespread. So many cases of STIs go undiagnosed and untreated, which can lead to serious health problems—particularly for women.





# STIs are easily passed through intimate sexual contact

STIs are spread during vaginal or anal intercourse, oral sex, and genital touching. It is possible to get some STIs without having intercourse. Here are some other reasons why STIs spread so easily:

- You can't tell if a person has an STI by the way he or she looks.
- Talking about sex is awkward for some people. They may not bring up safe sex or STIs with their partners.

- Many STIs have no or only mild symptoms. So many people don't know that they have an STI or that they are putting their partners at risk.
- If you have unprotected sex, you may
  be exposed to the STIs that your partner's past and present partners have
  had. This is true even if you have been
  sexually active with only one person.
- Myths and false beliefs about STIs put people at risk for getting and passing on STIs.



#### **TRUE statements about STIs:**

You CAN get an STI without having intercourse. You CANNOT get HIV from sitting on toilet seats. Birth control pills DO NOT protect from STIs.



#### STIs: Very dangerous to women

Both men and women get STIs. But women suffer more frequent and more serious complications from STIs than men. Overall, untreated STIs can cause cancer, infertility, pregnancy problems, and other health problems in women. Women also need to be concerned about STIs for these reasons:

- Mild symptoms can be mistaken for "nothing" or something else, such as a urinary tract infection (UTI) or yeast infection.
- A woman's ability to protect herself from STIs depends upon whether or not she is able to get her partner to use a condom. Women who don't feel they can choose to use a condom are at greater risk for getting STIs because they may feel forced to take part in

- unsafe sexual practices. This is true for women in relationships and for women who are victims of sexual assault. For help with asking your partner to use a condom, see page 126.
- Some STIs increase a woman's risk of getting HIV/AIDS and other STIs because they irritate the vagina. Some cause open sores. This makes it easier for semen or vaginal fluids carrying HIV or other STIs to get inside a woman's body.
- Having prior STIs raises a woman's risk of future STIs. The reasons for this are complex and include biological, behavioral, and social issues.
- Silent and very harmful STIs, such as chlamydia affect young women at higher rates.
- Women of color suffer from STIs at higher rates than other women. In 2005, the rate of reported chlamydia was seven times greater in black women and almost five times greater in American Indian/Alaska Native women than in white women. These differences might reflect limited access to quality health care, higher rates of poverty, and other health issues among these women.

## Will I get an STI?

The answer depends upon whether or not you take steps to reduce your risks. Keep in mind that more than half of Americans will have an STI at some point in their lifetime.

#### **Learning more: Types of STIs**

More than 25 infections are known to be passed through sexual contact. The STIs discussed here are among the most common and dangerous to women.

Bacterial vaginosis (BV)	How you get it	Symptoms	How to find out if you have it
BV is the most common vaginal infection in women of childbearing age. With BV, the normal balance of bacteria in the vagina is changed so that there are more "harmful" bacteria and fewer "good" bacteria. Antibiotics are used to treat and cure BV.	Not much is known about how women get BV. Any woman can get BV. But BV rarely occurs in women who have never had vaginal sex. Having BV can increase a woman's risk of getting an STI, including HIV. These things put you more at risk for BV:  Having a new or many sex partners  Douching  Using an intruterine device (IUD) for birth control  Not using a condom	You cannot get BV from such objects as toilet seats, bedding, or swimming pools.  Most women have no symptoms. Women with symptoms may have:  Vaginal itching Pain when urinating Discharge with a fishy odor	Your doctor will test a sample of fluid from your vagina. Your doctor also may be able to see signs of BV, like a grayish-whitish discharge, during an exam.

Chlamydia	How you get it	Symptoms	How to find out if you have it
Chlamydia is the most frequently reported STI caused by bacteria. It is a "silent" disease because 75 percent of infected women and at least half of infected men have no symptoms. Severe complications can result from untreated chlamydia. Antibiotics are used to treat and cure chlamydia.	Women and men can get chlamydia by having vaginal, anal, or oral sex with an infected person.  An infected mother can also pass chlamydia to her baby during child-birth.	Most women have no symptoms. If symptoms do occur, they usually appear within one to three weeks of exposure. Symptoms, if any, include:  • Abnormal vaginal discharge  • "Burning" when passing urine  • Bleeding between periods  • Lower abdominal pain  • Low back pain  • Nausea  • Fever  • Pain during sex	Your doctor can tell if you have chlamydia by testing your urine or by testing a swab sample taken from the infected site, such as the cervix.

Genital herpes	How you get it	Symptoms	How to find out if you have it
Genital herpes is caused by the herpes simplex viruses type 1 (HSV-1) and type 2 (HSV-2). Most genital herpes is caused by HSV-2.  About one in four women in the United States have had HSV-2 infection.  The virus will stay in the body forever. But outbreaks, for people who have them, tend to be less severe and occur less often over time. Also, antiviral therapy can shorten outbreaks and make them less severe, or keep them from happening.	Genital herpes is spread through genital-to-genital or genital-to-oral contact. It spreads most easily when an infected person has open sores. But, you also can get herpes from an infected person who has no symptoms. You do not need to have intercourse to get herpes. You cannot get herpes from objects such as toilet seats, bathtubs, or towels.	Most people have mild or no symptoms. For people who have "outbreaks," the symptoms are clear:  • Small red bumps, blisters, or open sores show up where the virus entered the body, such as the penis, vagina, or mouth  • Vaginal discharge  • Fever  • Headache  • Muscle aches  • Pain when passing urine  • Itching, burning, or swollen glands in the genital area  • Pain in legs, buttocks, or genital area  • Symptoms may go away and then come back. Sores heal after two to four weeks.  Your doctor can tell you if you have genital herpes by looking at the sores and by taking a sample from the sore for lab	It can be hard to tell if you have herpes without symptoms. Blood tests can help detect herpes when there are no symptoms or between outbreaks.

testing.

Gonorrhea	How you get it	Symptoms	How to find out if you have it
Gonorrhea is caused by a type of bacteria that thrive in warm, moist areas of the reproductive tract. It also can grow in the mouth, throat, eyes, and anus.  Most women who have gonorrhea have no symptoms. Untreated gonorrhea can lead to serious health problems.  Antibiotics are used to cure gonorrhea. But gonorrhea has become more and more resistant to antibiotics, which means the drugs do not work as well or at all. Still, it's important to get tested and treated by a doctor.	You can get gonorrhea through contact with an infected vagina, penis, anus, or mouth. It is spread through semen and vaginal fluids during unprotected sexual contact with a person who has it. Touching infected sex organs, and then touching your eyes can cause an eye infection.  An infected pregnant women can pass gonorrhea to her baby during vaginal delivery.  You cannot get gonorrhea from shaking hands or sitting on toilet seats.	Most women have no symptoms. When a woman does have symptoms, they most often appear within 10 days of becoming infected. Symptoms can include:  Pain or burning while passing urine  Yellowish and sometimes bloody vaginal discharge  Bleeding between periods  Pain during sex  Heavy bleeding during periods  These signs can be mistaken for a bladder or another vaginal infection.  Gonorrhea that affects the anus might cause discharge, itching, or painful bowel movements. Infections in the throat could cause a sore throat. With eye infection, symptoms may include redness, itching, or	Your doctor can tell if you have gonorrhea by testing your urine or by testing a swab sample taken from the infected site, such as the cervix.

Hepatitis B	How you get it	Symptoms	How to find out if you have it
Hepatitis B (HBV) is one type of viral hepatitis. With hepatitis, the liver does not work well.  In most people, HBV gets better on its own. Longlasting hepatitis (chronic) can lead to scarring of the liver, liver failure and liver cancer. Chronic HBV can be suppressed with some antiviral drugs. But these drugs don't work for all people.  Vaccines are available for hepatits A and B.	HBV is spread by exposure to an infected person's blood. This can happen by having vaginal, anal, or oral sex with someone who is infected. It also can be passed from an infected mother to her baby during vaginal childbirth or through sharing needles with an infected person. You also can get HBV by sharing personal items, such as razors or toothbrushes, with an infected person. You cannot get hepatits through casual contact, such as shaking hands, hugging, or kissing.	Some people with viral hepatitis have no signs of infection. Others might have:  • Low-grade fever  • Headache  • Muscle aches  • Tiredness  • Loss of appetite  • Nausea  • Vomiting  • Diarrhea  • Dark-colored urine and pale bowel movement  • Stomach pain  • Yellowing of skin and whites of eyes (jaundice)	Your doctor can tell if you have viral hepatitis through blood tests and a medical exam.

## HIV/AIDS

For complete information on HIV/AIDS, see page 139.

Pubic lice	How you get it	Symptoms	How to find out if you have it
Also called "crabs," pubic lice are parasites found in the genital area on pubic hair and sometimes on other course body hairs. Pubic lice are common. They are different than head lice. Special shampoos and medicines are used to kill pubic lice.	Pubic lice usually are spread through sexual contact. Intercourse does not need to occur. Rarely, pubic lice are spread through contact with an infected person's sheets, towels, or clothes.  Pubic lice CANNOT be spread by sitting on a toilet seat. Animals do not get or spread pubic lice.	Symptoms of pubic lice include:  • Itching in genital area  • Visible nits (lice eggs) or crawling lice (which look like crabs when viewed with a magnifying glass)	Doctors can tell if a person has pubic lice by looking closely at the pu- bic hair for nits or young or adult lice.

Human papillomavirus (HPV) and genital warts	How you get it	Symptoms	How to find out if you have it
There are more than 100 types of HPV, 30 of which are passed through sexual contact. The types of HPV that infect the genital area are called genital HPV.  HPV is very common. Most sexually active people will have it at some point in their lives.  Some types of genital HPV are "high risk," which means they put a woman at greater risk for getting cervical cancer. "High risk" does not have to do with the risk of getting HPV. Low-risk types of HPV do not cause cervical cancer. But low-risk types of HPV may cause genital warts.  There is no treatment or cure for HPV. But a new HPV vaccine protects women against some HPV types that cause cancer or warts. See page 128 for more infor-	Genital HPV is passed by skin-to-skin and genital contact, mainly during vaginal and anal intercourse. It might also be possible to pass it during oral sex.	HPV usually has no symptoms.  Both low-risk and highrisk types of HPV can cause growths on the cervix and vagina. These often are invisible.  Low-risk types of HPV can cause genital warts. Warts can form weeks, months, or years after sexual contact with a person who has genital HPV. They can grow inside and around the outside of the vagina, on the vulva and cervix, groin, and in or around the anus. Warts can be raised or flat, alone or in groups, small or large, and sometimes they are shaped like cauliflower.  High-risk types of HPV may cause cervical changes that, if not treated, may progress into cervical cancer.	A Pap test can find changes on the cervix that are caused by HPV infection. Women who have had the HPV vaccine still need to have a regular Pap test.  An HPV test, which is a DNA test that detects high-risk types of HPV, may be done for women who are older than 30 or for women who are younger than 30 who have abnormal Pap test results. An abnormal Pap test result does not mean for sure that a woman has HPV or cervical cancer. Follow-up tests are needed to confirm any diagnosis.  Having genital warts is another way a doctor can tell if a person has an HPV infection.

Syphilis	How you get it	Symptoms	How to find out if you have it
Syphilis is caused by a type of bacteria. It progresses in stages. Without treatment, the infection will continue to progress, possibly leading to death.  Syphilis can be cured with an antibiotic. Penicillin is the preferred drug to treat syphilis at all stages. Doctors can use other medicines for people who cannot take penicillin.	Syphilis is spread during vaginal, anal, or oral sex through contact with an open sore or contact with a skin rash of an infected person. The bacteria can enter the body through the penis, anus, vagina, mouth, or through broken skin. It can be spread during the first two stages of the disease.  An infected pregnant woman also can pass syphilis to her baby during pregnancy and childbirth.  Syphilis is not spread by contact with toilet seats, doorknobs, swimming pools, hot tubs, bath tubs, shared clothing, or shared food and drinks.	In the primary stage, a single, painless sore appears about 10 to 90 days after infection. It can appear in the genital area, tongue, lips, or other parts of the body. The sore will heal with or without treatment.  The secondary stage starts three to six weeks after the sore appears. Symptoms can include:  Skin rash with rough, red or reddish-brown spots both on the hands and feet that usually does not itch and clears on its own.  Fever  Sore throat and swollen glands  Patchy hair loss  Headaches and muscle aches  Weight loss  Tiredness  In the latent stage, symptoms go away, but can come back. When symptoms come back, the infection can be passed to others. People without treatment may or may not move to the late stage.  Late stage. The infection spreads and can cause damage throughout the body. Some people may die.	A doctor can tell if a person has syphilis in a number of ways:  Recognizing the signs and symptoms and confirming with tests.  Looking at the fluid from a sore or swollen lymph node under a microscope.  Testing the patient's blood in the lab.

Trichomoniasis	How you get it	Symptoms	How to find out if you have it
This infection, also called "trich," is caused by a parasite. It usually is passed through sexual contact. But it also can be picked up from contact with damp, moist objects.  Antibiotics are used to treat and cure trichomoniasis.	The parasite can be passed though penis-in-vagina intercourse or vulva-to-vulva contact with an infected partner. Women can get the disease from infected men or women.  It also can be passed if the genital area comes in contact with damp towels, wet clothing, toilet seats, or other moist objects where the parasites are present.	Many women do not have symptoms. Symptoms, which usually appear five to 28 days after exposure, can include:  • Yellow, green, or gray vaginal discharge (often foamy) with a strong odor  • Discomfort during sex or when passing urine  • Itching and discomfort in the genital area  • Lower stomach pain (rarely)	A doctor will do a pelvic exam and lab test to tell if a person has trichomoniasis. The doctor sometimes can see small, red sores inside the vagina or on the cervix. The doctor also will take a fluid sample from the vagina and look for the parasite under a microscope or send the sample to a lab for testing, or use other lab tests.

If you have any symptoms of an STI, stop having sex and contact your doctor right away.

#### **Treating STIs**

The treatment depends on the type of STI. For some STIs, treatment may involve using medicine or getting a shot. For STIs that cannot be cured, like genital herpes, treatment can ease symptoms. During treatment, follow all of your doctor's orders and avoid sex during treatment or an outbreak. And be sure to finish all the medicine your doctor gives you, even if your symptoms go away. With most STIs, your sexual partner(s) should be treated, too. This can keep you from getting the STI again or your partner from passing it to other people. Remember, the sooner an STI is found, the easier it is to treat and the less likely you will have health complications.

# How untreated STIs can affect your health

You might be too shy to talk to your doctor about your risk of STIs or any symptoms you might be having. But not talking to your doctor could be far worse than any embarrassment you might feel. Untreated STIs can cause severe health problems for women, such as pelvic inflammatory disease (PID), infertility, ectopic pregnancy, widespread infection to other parts of the body, cancer, organ damage, and even death.

## STIs and pregnancy

STIs can cause many of the same health problems for pregnant woman as for women who are not pregnant. Moreover, STIs during pregnancy can cause early labor, cause the water to break early, and cause infection in the uterus after the birth. STIs also can cause problems for the unborn baby. Some STIs can cross the placenta and infect the baby

## What is pelvic inflammatory disease (PID)?

Pelvic inflammatory disease, or PID, is a broad term used to describe an infection of a woman's pelvic organs. Many types of bacteria can cause PID. Often, PID is a complication of untreated STIs—mainly chlamydia and gonorrhea. Damage from PID can cause a woman to become infertile (not able to become pregnant). In fact, about one in every five women with PID becomes infertile. PID also can cause chronic pelvic pain and ectopic pregnancy (pregnancy in the fallopian tube, which can be life threatening). It can be hard to tell if a woman has PID because there are no specific tests for PID and she might have mild or no symptoms. Women who have symptoms might have:

- · pain in lower belly area
- fever
- · unusual vaginal discharge, which may smell badly
- · pain during sex
- · bleeding between periods
- · pain during pelvic exam

A doctor will ask about symptoms and can perform a pelvic exam and tests to tell if a woman has PID. Once found, PID can be cured with antibiotics. But any damage already done to a woman's reproductive organs before treatment cannot be reversed. So, early treatment of PID is very important. A woman should see her doctor right away if she thinks she might have an STI or PID.

while it is in the uterus. Others can be passed from a pregnant woman to the baby during delivery. The harmful effects to babies range from low birth weight, to chronic liver disease, to stillbirth. Some of these problems can be prevented if the mother has routine prenatal care, which includes screening tests for STIs at various points during the pregnancy. Other problems can be treated if the infection is found at birth or within a few days after birth.

## STIs and breastfeeding mothers

Some STIs can be passed to your baby through breastfeeding. And some medi-

cines used to treat STIs can pass to your baby through your breast milk. Talk to your doctor about whether or not you should breastfeed if you have an STI. More information can also be found in the *Breastfeeding* chapter on page 189.

## How to protect yourself from STIs

Even though STIs pass easily from person to person, there are steps you can take to lower your risk of getting an STI. The following steps work best when used together—no single strategy can protect you from every single type of STI.

- Don't have sex. The surest way to avoid getting any STI is to practice abstinence, which means not having vaginal, oral, or anal sex. Keep in mind that some STIs, such as genital herpes, can be spread without having intercourse.
- Be faithful. Having sex with one, uninfected partner who only has sex with you will keep you safe from STIs. Both partners must be faithful *all of* the time to avoid STI exposure. This means that you only have sex with
- each other and no one else. The fewer sex partners you have, the lower your risk of being exposed to an STI.
- Use condoms correctly and EVERY time you have sex. Use condoms for all types of sexual contact, even if penetration does not take place. Condoms work by keeping blood, a man's semen, and a woman's vaginal fluids—all of which can carry STIs—from passing from one person to another. Use protection from the very beginning to

## **How To Use Condoms Correctly**

Both male and female condoms are highly protective when used correctly. But, don't use them both at the same time! They do not stay in place when used together. Read the instructions and practice a few times before using condoms for the first time. Also, follow these guidelines:

#### Male condom

Use male condoms made of latex, or polyurethane if you or your partner is allergic to latex. "Natural" or "lambskin" condoms don't protect against STIs. Use male condoms for vaginal, anal, or oral sex.

- Keep male condoms in a cool, dry place.
   Storing condoms where it can get hot, like in the car or your wallet, can cause them to break or tear.
- Check the wrapper for tears and to make
   sure the condom is not too old to use.
   Carefully open the wrapper—don't use
   your teeth or fingernails. Make sure the condom looks okay to use. Don't use a
   condom that's gummy, brittle, discolored, or has even a tiny hole.
- Put on the condom on as soon as the penis is erect, but before it touches the vagina, mouth, or anus.
- Use lubricants only made with water (such as, K-Y Jelly™, Astroglide™, AquaLube™, glycerine). Oil-based lubricants, such as Vaseline™, can weaken the condom. The lubricant is put on the outside of the condom. It helps to keep the condom from tearing. Don't regularly use lubricants with spermicide called nonoxynol-9 (N-9), which might make it easier for an STI—including HIV—to get into your body.



the very end of each sex act, and with every sex partner. And be prepared: Don't rely on your partner to have protection.

• Know that certain birth control methods—and other methods—don't protect against STIs. Birth control methods including the pill, shots, implants (IUD), diaphragms, and spermicides will not protect you from STIs. They only can help keep you from getting pregnant. Still, many

women who use these forms of birth control don't use condoms. If you use one of these birth control methods, make sure to also use a condom with every sex act. Also, don't use contraceptives that contain the spermicide nonoxynol-9 (N-9). N-9 can irritate the vagina, which might make it easier for an STI—including HIV—to get into your body. Keep in mind that women who are unable to become pregnant can get STIs.

- After sex, pull out the penis while it is still erect, holding the condom firmly at the base of the penis so it does not slip off.
- Use a new condom if you want to have sex again or in a different way.

#### Female condom

The female condom (Reality™) is made of the plastic polyurethane. It has a ring on each end. The inside ring holds the condom in place inside the vagina. The outer ring stays outside the vagina so it covers the labia. Use female condoms for vaginal sex if your partner can't or won't use a male condom.

- Check the wrapper for tears and to make sure the condom is not too old to use.
   Open the wrapper carefully—don't use your teeth or fingernails. Make sure the condom looks okay to use.
- Put the condom into the vagina up to eight hours before having sex, but before the penis touches the vagina. The condom cannot disappear inside your body.
- It is okay to use water or oil-based lubricants. The lubricant is put on the inside and outside of the condom.



- After sex, remove the condom before standing up. Grasp the outside ring and twist
  the condom to trap in fluid and gently remove.
- Use a new condom if you want to have sex again or in a different way.



You might have heard of other ways to keep from getting STIs—such as washing genitals before sex, passing urine after sex, douching after sex, or washing the genital area with vinegar after sex. But these methods DO NOT prevent the spread of STIs.

- Talk with your sex partner(s) about using condoms before having sex.

  This way, you can set the ground rules and avoid misunderstandings during a moment of passion. Hopefully, you and your partner will agree to use condoms all the time. But know this: You can control their use by making it clear that you will not have any type of sex at any time without a condom. Remember, it's your body, and it's up to you to make sure you are protected.
- Don't assume you're at low risk for STIs if you only have sex with women. Some common STIs are spread easily by skin-to-skin contact. Also, most women who have sex with wom-

- en have had sex with men, too. So, a woman can get an STI from a male partner, and then pass it to a female partner.
- Don't abuse drugs or alcohol. Heavy drinking and drug use can put you at greater risk for STIs. Drinking too much and using drugs is linked to sexual risk-taking, such as having sex with more than one partner and not using condoms. Drug-users who share needles risk exposure to blood-borne infections that also can be passed sexually, such as HIV and hepatitis B. Drinking too much alcohol or using drugs puts you at risk of sexual assault and possible exposure to an STI.
- Get tested for STIs. If either you or your partner has had other sexual partners in the past, get tested for STIs before becoming sexually active. Don't wait for your doctor to ask you about getting tested—ask your doctor! Many tests for STIs can be done at the same time as your regular pelvic exam.
- Have regular checkups and pelvic exams—(even if you think you're healthy.) During the checkup, your doctor will ask you a lot of questions about your lifestyle, including your sex life. This might seem too personal to share. But answering honestly is the only way your doctor is sure to give you the care you need. Your doctor might also do a Pap test to check for signs of cancer in your cervix. Ask your doctor how often you need a Pap test. Also, ask your doctor if the HPV vaccine is right for you (See page 134 for more information).

# After diagnosis: What to do if you have an STI

Finding out that you have an STI might be difficult to face, especially if the source of your STI is an unfaithful partner or if it cannot be cured. For many, coping with the emotional side of having an STI is more difficult than managing the physical affects. But once you know what you are up against, you can start treatment right away and take steps to keep you and your partner(s) healthy.

#### Let partners know

Although you might not want to tell anybody about your STI, informing all of your sexual partner(s) is the only way to stop the STI from getting passed to others or possibly reinfecting you. If your partner has other partners, they should be notified too. There are a few ways to do this:

- 1. Tell your partner(s) yourself and urge your partner(s) to get treated for the STI. For gonorrhea or chlamydial infection, you might be able to give your partner the needed medicine without him seeing a doctor. This is called expedited partner therapy (EPT). EPT is a last resort option for partner(s) who won't or can't see a doctor. EPT is not possible in all states. If your partner is unwilling to seek treatment, ask your doctor if EPT is possible where you live.
- 2. Ask your doctor or the clinic where you were diagnosed to notify your sexual partner(s) anonymously. That means they won't disclose your name.

- 3. Tell your main partner, but ask that your medical provider inform all other or past partners.
- 4. Ask your doctor for help if you fear that notifying your partner(s) might lead to a violent or abusive reaction.

#### Follow treatment orders

Different STIs are treated differently. Follow your doctor's orders and finish any medicine you are given to cure or manage the infection. Even if your symptoms go away, you still need to finish all the medicine. Your doctor also will instruct you to not have sex until you and your partner(s) have finished treatment and until symptoms, such as sores, have completely cleared. You might also need to get a follow-up test after treatment to make sure the infection is cured. Doing these things is the only way to be sure your STI is treated and won't be passed to other people.



#### Be responsible sexually

Whether you are in a long-term relationship or involved with somebody new, it's up to you to act responsibly when it

comes to your and your partner(s) sexual health. This means:

• Talking honestly about your having an STI, so that your current or fu-

## **Frequently Asked Questions About the HPV Vaccine**

#### I've never heard of the HPV vaccine. What is it?

Many women don't know about the HPV vaccine and question whether it is something they need. That's because the HPV vaccine came out in 2006. It is the first vaccine to prevent cervical cancer and other diseases caused by certain types of genital human papillomavirus (HPV). The vaccine protects women against four HPV types, which together cause 70 percent of cervical cancers and 90 percent of genital warts. It does not treat existing HPV infections. The vaccine is given through a series of three shots over a six-month period. Getting the vaccine is important



as more than half of sexually active women and men are infected with HPV at some point in their lives.

#### Who should get this vaccine?

It is recommended for 11- to 12-year-old girls, and can be given to girls as young as 9—an age when most girls are not yet sexually active. It is also recommended for 13-to 26-year-old females who have not yet received or completed the vaccine series.

#### How long does vaccine protection last?

So far, we know that protection from HPV lasts at least five years in women who have been vaccinated.

#### I'm older than 26. Why isn't the vaccine recommended for me-or for men?

So far, the vaccine has been widely tested only in 9- to 26-year-old females. Research is just beginning to look at whether the vaccine also is safe and effective in women older than 26. Researchers also are working to find out if the vaccine will prevent HPV in men and boys.

#### I'm pregnant. Should I get the HPV vaccine?

Pregnant women should not get the HPV vaccine until after the baby is born. There is not enough research to know how the vaccine might affect pregnant women and their unborn babies.

#### After I get the HPV vaccine, do I still need to be screened for cervical cancer?

Yes. There are three reasons why. First, the vaccine does not protect against all HPV types that cause cancer. Second, women who don't get all the vaccine doses (or at the right time) might not be fully protected. Third, women may not fully benefit from the vaccine if they got it after acquiring one or more of the four HPV types.

ture partner(s) can make an informed choice whether or not to be intimate with you.

 Abstaining from sexual contact during treatment or when you have symptoms, such as warts or sores.

#### Take care of your emotions

If you recently found out that you have an STI, you might feel like you're the only one or that you're now "different" from other people. You might feel embarrassed, a sense of "dirtiness", shame, or guilt. These feelings might keep you from wanting to seek treatment or telling your partner(s). You also might worry about getting better or that an STI will keep you from having a long-lasting romantic relationship in the future. Rest assured that these feelings are normal at first, and will lessen over time. The following tips might also help you to adjust to the diagnosis:

- Learning the facts about the STI will help put your situation in perspective and give you a sense of greater control over your health and well-being.
- Talking to a trusted friend or loved one will ease stress.



 Connecting with a support group can help you to feel less alone and to see how others have dealt with similar situations in a positive way.

Keep in mind that stigma is behind many of the negative feelings that surround STIs. If you are living with an STI, try not to become a victim of stigma yourself. The more you know about STIs, the better control you will have over your sexual health. At the same time, knowing more can make it easier to talk about STIs with a loved one.

# One Woman's Story

At the start of my sophomore year, I couldn't have been more prepared to take on the year. I spent the summer interning and training for a race with my sister. I felt accomplished and healthy. But, my first test of the year changed everything.

My yearly Pap showed abnormal cells, so we ran an HPV test, which confirmed that I have HPV. The next step was to see a gynecologist and have a colposcopy.

I was sure I would die from cervical cancer. If not, stress would do me in. I spent hours with the nurse practitioner, getting medical leave for doctor's appointments, worrying how to cover the cost of procedures and doctors visits, and coping with possibly spreading HPV to my boyfriend.

At some point, my sister sent a card with a few encouraging words. "Don't let three letters define you," she wrote. Her words helped me though the most difficult parts. Telling my mom I wasn't sure how I got HPV was extremely hard. I was disappointed in myself, and it felt even worse that my mom might be too. Telling friends, who used to know everything about me, that I had a

# Don't let three letters define you.

doctor's appointment without elaborating or talking with my boyfriend about how HPV impacts him were the most challenging moments in those relationships.

This year I've had two Paps, two colposcopies, and an undying sense of guilt for bringing this on my family and boyfriend. I feel guilty because I knew how to prevent STIs. I can only be reassured knowing that when cell changes are monitored, cervical cancer is rare. I can't go back and change the past, but I can prevent this from getting worse. I choose what defines me, and this is not it.

Kathleen

Toms River, NJ

## For More Information...

## Office on Women's Health, Department of Health and Human Services

200 Independence Ave, SW, Room 712E

Washington, DC 20201

Web site: www.womenshealth.gov/faq/

stdsgen.htm

Phone number: (800) 994-9662,

(888) 220-5446 (TDD)

#### Division of STD Prevention, CDC

1600 Clifton Rd NE Atlanta, GA 30333

Web site: www.cdc.gov/std

Phone number: (800) 232-4636,

(888) 232-6348 TTY

#### American College of Obstetricians and Gynecologists

409 12th St SW, PO Box 96920 Washington, DC 20090-6920

Web site: www.acog.org

Phone number: (202) 863-2518 Resource

Center

#### **American Social Health Association**

PO Box 13827

Research Triangle Park, NC 27709

Web site: www.ashastd.org

Phone number: (919) 361-8488 STI

Hotline, (919) 361-4848 pre-recorded information

CDC National Prevention Information

## Network

PO Box 6003

Rockville, MD 20849-6003 Web site: www.cdcnpin.org

Phone number: (800) 458-5231

Planned Parenthood Federation of America

434 W 33rd St

New York, NY 10001

Web site: www.plannedparenthood.org

Phone number: (800) 230-7526

For resources about HIV/AIDs go to page 151.



# Mental Health

A healthy mind is as important as a healthy body to your overall well-being. Good mental health helps you to feel good about yourself, connect with others, find meaning in life, and thrive at home, work, and in play. Good mental health doesn't mean you will never be sad, insecure, or worried. But good mental health can help you keep problems in perspective.

Some factors that influence mental health are out of our control, such as our genes and some life events. But many are not. Just like physical activity and eating right help to keep your body healthy, you can make lifestyle choices to help keep emotionally healthy, too.

#### What is mental health?

Mental health is how we think, feel, and act as we cope with life. It helps determine how we handle stress, relate to others, and make choices. Your mental health is shaped by the interplay of many forces. These include:

- · Brain chemicals
- · Culture
- Environment
- · Genes
- Hormones
- Illness
- · Life events
- Personality
- Reproductive cycle
- Society





Mental health exists on a spectrum. At one end are feelings, thoughts and behaviors that allow you to thrive. On the other are feelings, thoughts, and behaviors that disrupt life and cause distress. Your point on the spectrum will change from moment to moment as the forces that shape your mental health change. You might not notice small changes in your mental health. But the big changes are easy to see and feel, such as the highs you might feel after reaching a personal goal or the lows after losing a job.

Your personal journey through life is unique. But there are predictable stages of a woman's life cycle, from girlhood to older adulthood. At some points, a woman's mental health may be more at risk for problems, such as after having a baby or the years just before menopause. But with each stage comes a capacity for strength and growth, too.

#### **Stress matters**

We feel stressed when the demands of life and our skills and resources for coping are out of balance. We have shortterm and long-term stress. Missing the A woman's mental health is shaped by her body, mind, and life experiences.

bus or arguing with a spouse can cause short-term stress. Single parenting or financial hardship can lead to long-term stress. Even some of our happiest times can be stressful, like during the holidays or having a baby. Some of the most common stressful life events include:

- Death of a spouse
- Death of a close family member
- Divorce
- Losing your job
- Major personal illness or injury
- Marital separation
- Marriage
- Pregnancy
- Retirement
- Spending time in jail



Social conditions such as living in poverty and racism can expose people to ongoing stress. So can discrimination or harassment at work. Stress caused by trauma, intimate partner violence, or an abusive or troubled home life during childhood can have potent and long-lasting effects on a woman's mental health. In fact, child sexual abuse, which is more frequent among girls, may have effects that last into adulthood—ranging from depression and anxiety to posttraumatic stress disorder (PTSD).

More familiar to many women is day-to-day stress. Stress that builds up can take a toll on your physical and mental health. Did you know that you are more likely to catch a cold during times of high stress? Long-term stress can put you at risk for more serious health problems, like depression or hypertension. Or make health problems you already have worse.

At the same time, not all stress is bad. Just enough stress keeps you focused and helps you to perform your best, such as the stress you might feel before speaking in front of a group of people. It also can prompt you to change a situation for the better, such as leaving a dead-end job. But any stress can affect your health. Pay attention to your body for signs that stress is building up. And try these tips to keep stress in check:

- Take time each day to relax and unwind, even if only a few minutes.
- Aim for seven to nine hours of sleep every night.
- Eat healthy foods, which give you energy.

- Make time for physical activity, which relieves tension and boosts mood.
- Talk to friends and loved ones. They are good listeners and might offer a different way of seeing things.

## Signs of Role Strain and Stress

Juggling multiple roles is a fact of life for most women today. Sometimes, our roles as wives, partners, mothers, workers, and caregivers can feel like they are competing for our time and energy. Role strain and stress can happen easily if you take on too much, set standards that are too high, and/or don't get the support you need. But life roles can enhance and support each other, too. Research suggests that multiple roles are better for you than having just one. Look out for these signs that you are spreading yourself too thin:

- anxiety
- depression
- feeling you don't have control, or a need for too much control
- · forgetfulness
- headaches
- · lack of energy
- · lack of focus
- · low morale
- · not able to get things done
- · poor self-esteem
- short temper
- trouble sleeping
- upset stomach
- withdrawal



- Make time to do things you enjoy and fulfill you.
- Set limits. Be realistic about what you can handle at work and in your personal life. Talk to your boss if work demands are too big to handle alone. If you feel overburdened, ask family and friends for help and say "no" to requests for your time and energy. Women often put the needs of others before their own.

#### Hormone rhythms and mood

Hormones are your body's chemical messengers. They affect many different processes in your body. The menstrual cycle is one example. Hormones rise and fall during the month and make the menstrual cycle happen. Many women notice physical and mood changes in the week or two before their period. We know that hormones have an effect on the brain chemistry that controls feelings and mood. In particular, estrogen

appears to have a strong effect on mood and mental health. But the exact process is still unclear. We do know that depression rates for girls go up suddenly at puberty—the time when a girl's period begins. Mood changes right after having a baby can range from mild, short-lived "blues," which last two weeks or less, to major depression, which lasts longer than two weeks. Some women report an increase in depressive symptoms in the years before menopause.

Even though hormones are powerful, keep in mind that many factors contribute to mood. A woman's normal hormone rhythms are only one piece of the puzzle.

## Taking care of your mental health

When you take care of your body, you likely strive to eat right, stay active, and take care to look your best. Your mental health needs similar care. In fact, to be healthy overall, you need to take care of both your body and mind—the two are closely connected. If you neglect caring for one, the other will suffer. These ideas will help you to care for both mind and body:

• Build self-esteem. Good self-esteem is linked to mental well-being, happiness, and success in many areas of life. It protects mental health during tough times. One way to build self-esteem is to value who you are and what you do. This is hard to do if you judge yourself by other people's standards or rely on others to make you feel good about yourself. Instead, accept the qualities—both strengths and weaknesses—that make you unique. Set re-

alistic standards and goals. Take pride in your achievements, both small and big. Positive thinking also boosts self-esteem. This comes naturally to some people. But it's a skill you can learn, too. Many people are lifted up by their spirituality. It can shape beliefs and values and be a source of comfort in hard times. It can be good to tune out the outside world and connect with the spirit within you.

- Find value and purpose in life. People who pursue goals based on their own values and dreams enjoy stronger mental well-being. Think about your values and dreams. What makes you happy? What do you care deeply about? What are you good at? If you could change one thing in the world, what would it be? What do you dream about? How do you want your friends and family to remember you? Use your answers to set short-term and longterms goals for yourself. Keep your goals realistic. Review them every once in a while, and make changes as your values and priorities change.
- Learn healthy ways to cope with hard times. How do you react to stress, change, or hardship? Do you see setbacks as failures or merely bumps in the road? Do you avoid problems or look for solutions? Do you obsess about issues without taking action to resolve them? If your style needs improving, take heart: Positive coping styles and traits can be learned with some effort. If you have trouble improving thinking patterns on your own, a mental health professional can help. You might also benefit from life-

skills classes. For example, parenting classes can prepare new mothers for what to expect. Being informed helps people to understand, control, and deal with situations that are new and stressful.



# Do I have a problem with alcohol?

Many women drink alcohol to cope with stress. But some women drink too much. Alcohol abuse and addiction cause stress in a job and family. Answer these questions to help find out if you might have a problem:

- 1. Have you ever felt you should cut down on your drinking?
- 2. Have people criticized your drinking?
- 3. Have you ever felt badly or guilty about your drinking?
- 4. Have you ever had a drink first thing in the morning to steady your nerves or to get rid of a hangover?

Talk with your doctor about your drinking if you answered "yes" to one or more questions. Even if you answered "no" to all the questions, talk to your doctor if drinking is causing you problems with your job, relationships, health, work, or the law.

• Build healthy relationships. We need healthy relationships to grow, thrive, and sustain us in hard times. They also protect from loneliness and isolation, which can lead to depression. Surround yourself with people who encourage and support you. You might draw strength from your ethnic or cultural community. Relationships that cause you to feel neglected, shameful, disrespected, or afraid are not healthy. Keep in mind that just as you need people, you are needed by others. Reach out and connect.

#### What is mental illness?

Mental illness is a collective term for a wide range of mental disorders. Mental disorders are medical conditions that disrupt how a person thinks, feels, and/or acts, resulting in distress and/or impaired functioning. Mental illness can be disabling, making it hard to meet and keep friends, hold a job, manage everyday tasks, or enjoy life. Mental illness is very common—affecting about one in four U.S. adults each year. Some mental disorders are more common in women. It's not your fault if you have mental illness. These disorders are real diseases that cannot be wished or willed away. Fortunately, recovery is possible for most mental disorders.

#### **Causes of mental illness**

Most mental disorders do not have a precise cause. Rather, cause lies in a mix of the same forces that shape mental health. We do know that biology plays a key role in the development of mental disorders, as it does with all health and illness. For example, posttraumatic stress



disorder (PTSD) can develop after a person is exposed to a very stressful or terrifying event. Yet not everyone who experiences trauma gets PTSD. For those who do, other factors must make them more vulnerable to PTSD. We do know that women are more likely to develop PTSD than men. We also know a link exists between some physical diseases and mental illnesses, such as between heart disease and depression. The relationship between mental illness and other diseases is an area of abundant research.

Sometimes, mental illness can be a symptom of another disease. For example, depression can be a symptom of an underactive or overactive thyroid. When thyroid problems are treated, the depressive symptoms go away.

#### **Faces of mental illness**

Mental illness can affect persons of any age, race, ethnicity, sex, income, or background. Certain groups of people have higher rates of reported mental illness. Rates of mental illness are much higher among the homeless, incarcerated,

and people living in poverty. African-Americans are over-represented in these vulnerable groups of people. And, African-Americans with mental health needs are much less likely to seek or receive professional help. American Indians and Alaska Natives have limited access to help and appear to have much higher rates of depression, including suicide. Asian-Americans have been stereotyped as "mentally healthier." But studies show similar rates of mental illness as other Americans. Hispanic-American youth are at much greater risk for poor mental health than white youth.

#### Women and mental illness

Being a woman puts you at greater risk for certain mental disorders, including depression, some anxiety disorders, and eating disorders. Some mental disorders



show up differently in women and men. An example is attention-deficit/hyper-activity disorder (ADHD), which can cause similar problems for both males and females. Yet, different symptoms appear to be one reason ADHD is often not recognized in girls and women. Also, it's not unusual for people to suffer from more than one mental disorder at the same time. About 15 percent of all adults who have a mental disorder in one year also have problems with drugs or alcohol, which makes treatment harder.

Anxiety disorders are the most common mental illness. They affect about 40 million American adults each year. For these people, feelings of fear, uncertainty, and anxiety do not go away and get worse over time. They may have chest pains or nightmares. They may even be afraid to leave home. Most anxiety disorders are treatable. Anxiety disorders include:

- generalized anxiety disorder (GAD)
- obsessive-compulsive disorder (OCD)
- · panic disorder
- posttraumatic stress disorder (PTSD)
- social anxiety disorder
- specific phobias

Mood disorders affect mood, energy level, and ability to function. More than 20 million American adults have a mood disorder. With depression, feelings of sadness and hopelessness do not go away. Severe depression can lead to thoughts of death or suicide. Most depressive disorders respond well to treatment. People with bipolar disorder have extreme mood swings, sometimes with normal mood in

between. It is a lifelong condition that must be carefully managed. Mood disorders include:

- major depressive disorder
- · dysthymia—mild, chronic depression
- premenstrual dysphoric disorder (PMDD)—a severe form of premenstrual syndrome (PMS)
- postpartum depression (See "Pregnancy and depression" on page 213)
- bipolar disorder
- seasonal affective disorder (SAD) depressed mood caused by change in seasons

Eating disorders involve serious problems in eating behavior, plus extreme concern for body shape or weight. Women are much more likely than men to have eating disorders. They usually start in the teenage years, but some women seek treatment for the first time in midlife. Getting help early is important. Eating disorders can cause heart and kidney problems and even death. The main types of eating disorders are:

- anorexia nervosa—an intense fear of getting fat causes you to not eat, even though you become too thin
- bulimia nervosa—involves bouts of overeating followed by purging, such as by throwing up
- binge-eating—out-of-control eating

Body dysmorphic disorder (BDD) is when a person is overly concerned about an imagined defect in appearance. BDD is not an eating disorder. But it may be present with an eating disorder, as well as an unitary disorder or depression.



Substance abuse and addiction can occur with other mental disorders or be a stand-alone problem, which causes problems at work and in relationships. Also, people often use alcohol and drugs to cope with life problems. This use can lead to abuse and addiction. Drug and alcohol addiction is a serious, long-lasting problem. There are no easy cures. But it's possible to overcome addiction with treatment.

Schizophrenia is a chronic, severe, and disabling mental disorder. People who have it may hear voices, see things that aren't there, or think that others are reading or controlling their minds. They have trouble thinking logically and expressing emotion. In women, symptoms usually start in the mid-20s to early 30s. Medicines can help many of the symptoms, but it can take many tries to find the right drug. With treatment, many people improve enough to have a good quality of life.

# **Pregnancy and Depression**

Depression is common during and after pregnancy. Pregnant women with depression can have a hard time caring for themselves. This can hurt the unborn baby. And depression that is not controlled during pregnancy triples the risk for postpartum depression (see below). You might not know you have depression because some normal pregnancy changes cause similar symptoms. So it's important to let your doctor know about any mood changes you might be having while you're pregnant.

After childbirth, many women get the "baby blues"—feeling sad, weepy, and overwhelmed for a few days. But some women develop postpartum depression, a serious but treatable condition that needs a doctor's help. Postpartum depression can happen anytime within the



first year of birth. In rare cases, a woman might have a severe form called postpartum psychosis. Some women don't tell anyone about their symptoms because they feel embarrassed or guilty for having these feelings at a time when they think they should be happy. Don't let this happen to you! Postpartum depression can make it hard to take care of your new baby. Infants of mothers with postpartum depression can have delays in learning how to talk. They can have problems with emotional bonding. They also might have problems with behavior, lower activity levels, sleep problems, and distress. **Call your doctor if:** 

- · Your baby blues don't go away after two weeks.
- Depressive symptoms get more and more intense.
- Strong feelings of sadness or anger come on one or two months after delivery.
- It is hard for you to perform tasks at work or at home.
- You cannot care for yourself or your baby.
- You have thoughts of harming your baby or yourself.

Keep in mind that there are ways to treat depression during and after pregnancy. Seek help if you find yourself feeling depressed at any time.

if you are taking medicine for depression and become pregnant, do not stop without talking to your doctor. Not using medicine that you need may be more harmful to you and your baby than using the medicine.

Personality disorders are long-term patterns of thoughts and behaviors that cause serious problems with relationships and work. People with personality disorders have a hard time dealing with everyday stresses and problems. They often have stormy relationships with other people. Borderline personality disorder (BPD) is one of 10 types of personality disorder. It has been defined as affecting

mostly young women. People with BPD have problems controlling emotion. Many, but not all, people with BPD were abused or neglected as young children.

Alzheimer's disease is not a mental illness. See the *Aging Well* chapter to learn more.

### How to know when you need help

Mental illness can be mild or severe. Even though mental illness is widespread, only about one in 17 Americans with mental illness are severely debilitated by their illness. Many people with mild forms of mental illness might not seek help, even though their quality of life is suffering. If emotional problems interfere with daily living, you should talk to your doctor. Keep in mind that professional help might benefit you in rough times, even if you do not have a diagnosable condition.

# Stigma: a barrier to treatment and recovery

Stigma, negative ideas linked to mental illness, is the biggest barrier to getting better. Many people don't seek help for mental health problems because they are ashamed, even though treatment is available. One reason stigma persists

is because mental illness is still widely misunderstood. Here are some common myths about mental illness:

- Mental illness is not a real illness, like cancer or heart disease.
- Mental illness is caused by emotional or personal weakness.
- Children don't get mental illness.
- People with mental illness are violent.
- People with mental illness can will it away if they really want to.

Your culture also can influence whether you think it's okay to seek help. Seeking help and drawing support from loved ones who understand is the only way to get better. Don't let stigma stand in the way of getting help!

### Where to go for help

There are many types of mental health professionals. They include:

- Certified alcohol and drug abuse counselors
- Clinical social workers
- · Faith-based counselors
- Licensed professional counselors
- · Marital and family therapists
- Mental health counselors
- Nurse psychotherapists



# **Feeling Hopeless?**

If you are feeling hopeless or thinking about death or suicide, get help right away! Call this toll-free number: 1-800-273-TALK (8255). You will reach the National Suicide Prevention Lifeline. This service is available to anyone, 24 hours a day, every day of the year. With help, it's possible to feel good again.



- Psychiatrists
- Psychologists

A good place to start looking for help is the doctor who normally cares for you. Your doctor can suggest mental health professionals based on the nature of your problem. If you do not have a regular doctor, contact a community mental health center near you. These centers can help you find a doctor or mental health counselor, even if you cannot afford to pay for care. If you don't feel comfortable with the professional you choose, it's okay to contact somebody else. Feeling comfortable with the doctor or counselor helping you is important to getting better.

# **Treating mental illness**

Today, many treatment options can help people with mental health problems and illness. Thanks to improved understanding of the brain and biology, new medicines are making it possible for people with serious disorders to work and enjoy a fulfilling life. Talking face to face with a mental health professional is another important tool for treating mental health problems. This is called psychotherapy. Some types are:

· behavior therapy—seeks to change destructive behavior

- · cognitive therapy—seeks to change or get rid of destructive thought patterns
- family therapy—involves every family member in the discussion and solving of issues
- group therapy—a facilitator helps a small group of people with similar problems
- movement/art/music therapy—helps people to express emotions
- · psychoanalysis—seeks to understand how past experiences influence mental health

Treating a mental health problem often involves more than one type of therapy, such as using medicine and behavior therapy. A problem might be helped with only a few sessions of counseling. Or treatment might last years. With severe mental illness, treatment in a hospital or outpatient clinic sometimes is necessary. Let your health care provider know if you don't begin to feel better after starting treatment. Keep in mind that recovery can take time.

# Recovery is a journey

The sooner a mental disorder is discovered, the better the chance for full recovery. Unlike most disabling physical illnesses, mental illness often begins early in life. Also, there is no lab test to tell if you have a problem that needs help. For these reasons, it's very important to talk with your doctor about any concerns you might be having as soon as possible. This way, if you do have a mental health problem or illness, you can start treatment early, and begin a journey toward feeling good again.

# One Woman's Story

I've been a social worker for 10 years and I never thought it could happen to me. I was told I could never conceive a child after the loss of two pregnancies. Then at age thirty, my husband and I were told that we were pregnant. I was stressed and very argumentative throughout my pregnancy and on January 8, 2006, I had a baby boy. He was born

two weeks early due to my placenta shutting down, so he was just 4 pounds. I was overjoyed and in love when I looked into his eyes and brought him home. I started doing my mommy duties and realized this was truly a tough job. My husband soon went to work while I remained on maternity leave and I was mostly home alone with the baby. I found myself crying and laughing at the same time. I did not want to go anywhere, but to my and my son's doctor appointments. I would beg family and friends not to leave me, especially my husband. I grew restless and overwhelmed.

Overcoming post partum depression will not happen over night.

From the experiences of dealing with depression professionally, I realized I had post

partum depression—a serious and real health condition. Since my diagnosis, I have been feeling better with the help of health care professionals and through positive change in my life. I got a new job that helped me to financially provide better for my son. My husband also got a new job. I now find time for myself. I have been pushing myself to allow trusted family and friends to watch my son while I go out sometimes with friends or out with my husband. When my son is asleep, whether chores are done or not, I watch television, do my nails, take a warm bath, or curl up and read a good book. Yes, it's an adventure, but I am learning to enjoy it as much as possible. Overcoming post partum depression will not happen over night. It takes acceptance, self encouragement to motivate, and patience. It takes attention from health care professionals who care. And for those who do believe in God, yes, it will take faith also. Thank you for allowing me to share my story.

Delshawn

Vineland, New Jersey

# For More Information...

### Office on Women's Health, Department of Health and Human Services

200 Independence Ave, SW, Room 712E Washington, DC 20201

Web site: www.womenshealth.gov/mh Phone number: (800) 994-9662,

(888) 220-5446 (TDD)

#### **National Center for Posttraumatic Stress** Disorder, VA

Web site: www.ncptsd.va.gov Phone number: (802) 296-6300

#### National Institute of Mental Health, NIH Science Writing, Press, and Dissemination Branch

6001 Executive Blvd, Room 8184, MSC 9663

Bethesda, MD 20892-9663 Web site: www.nimh.nih.gov Phone number: (866) 615-6464, (866) 415-8051 TTY

### National Mental Health Information Center, SAMHSA

PO Box 42557 Washington, DC 20015

Web site: mentalhealth.samhsa.gov Phone number: (800) 789-2647,

(866) 889-2647 TDD

### American Psychiatric Association

1000 Wilson Blvd, Suite 1825 Arlington, VA 22209 Web site: www.healthyminds.org

Phone number: (888) 357-7924

# American Psychological Association

750 First St NE Washington, DC 20002-4242 Web site: www.apa.org/topics

#### **Anxiety Disorders Association of America**

8730 Georgia Ave, Suite 600 Silver Spring, MD 20910 Web site: www.adaa.org

#### Mental Health America

2000 N Beauregard St. 6th Floor Alexandria, VA 22311

Web site: mentalhealthamerica.net Phone number: (800) 969-6642, (800) 433-5959 TTY

#### National Alliance on Mental Illness Colonial Place Three

2107 Wilson Blvd., Suite 300 Arlington, VA 22201-3042 Web site: www.nami.org Phone number: (800) 950-6264

#### **National Eating Disorders Association**

603 Stewart St. Suite 803 Seattle, WA 98101

Web site: www.nationaleatingdisorders.org

Phone number: (800) 931-2237

#### **National Suicide Prevention Lifeline**

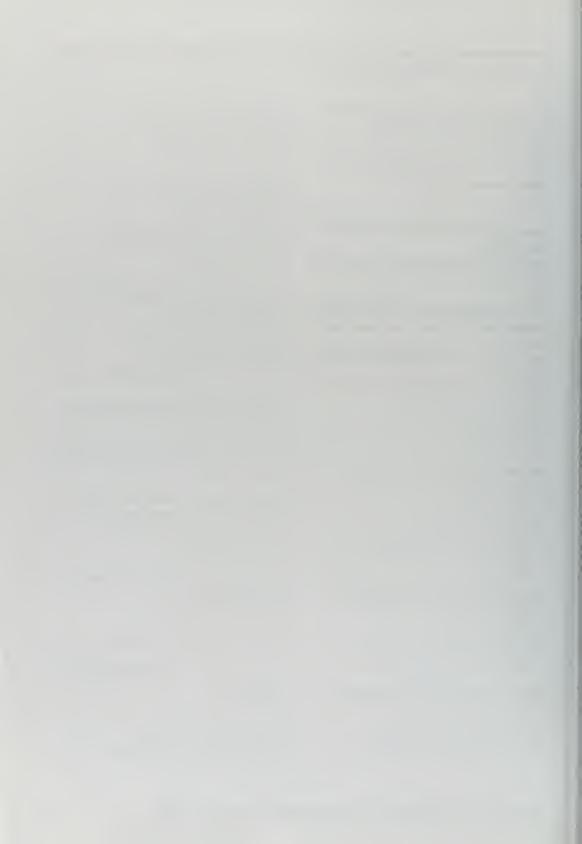
Web site: www.suicidepreventionlifeline.org Phone number: (800) 273-8255, (800) 799-4889 TTY

### Postpartum Support International

927 N Kellogg Ave Santa Barbara, CA 93111 Web site: www.postpartum.net Phone number: (800) 944-4PPD

# National Center for Girls and Women with AD/HD

3268 Arcadia Pl NW Washington, DC 20015 Web site: www.ncgiadd.org Phone number: (888) 238-8588



# Complementary and Alternative Medicine

Perhaps you have seen a bottle of an herbal medicine in the drug store and wondered if it might help get rid of your cold. Or you have thought about going to a chiropractor (KY-roh-PRAKtor) to treat your back pain. If so, you are not alone. Every year, millions of Americans try some form of complementary and alternative medicine—practices and products that are different from those normally used by your family doctor.

But you may wonder: do these treatments work? Or am I wasting my money? Most importantly, are they safe? Health experts are still trying to answer these questions. More research will hopefully shed light on the real benefits and risks of these alternative treatments.

# What is complementary and alternative medicine?

The treatments used by most doctors are considered conventional medicine. Complementary and alternative medicine (CAM) consists of a group of health care practices and products that are considered out of the mainstream.

An "out-of-the-mainstream" treatment is considered complementary if you use it *along with* conventional medicine. An example would be using acupuncture (AK-yoo-PUHNK-cher) along with painkilling drugs to reduce labor



pains. A treatment is considered alternative if you use it *instead of* conventional medicine. An example would be using acupuncture as your only treatment for headache.

This chapter will help you learn about the major CAM treatments and how they might benefit you. Also, just as importantly, it will tell you about the risks of certain CAM treatments and what to watch out for.

#### Who uses CAM?

Research shows that 40 percent of women in the United States use some form of CAM. If you include prayer for health reasons and taking large doses of vitamins as types of CAM, that number rises to 69 percent. CAM is used more by:

- women
- people with more education
- people who live in or near cities

### Why do people use CAM?

People try CAM for a variety of reasons, including:

- Conventional medicine has not helped solve their medical problem.
- They believe that products derived from nature are healthier and safer than prescription drugs, even though they may not be.
- They like the holistic approach taken by CAM therapists. A holistic approach involves paying attention to all of a client's needs to help them regain and maintain their health. These include not just physical but also emotional, social, and spiritual needs.



While something can be said for all of these reasons, you should be aware of some of the downsides of using CAM treatments, such as:

- No CAM treatment has been proven to work beyond a shadow of a doubt.
- Some CAM products, although derived from plants, can cause health problems. For instance, ephedra, a Chinese herbal product, was being sold in the United States to help people lose weight and to enhance athletic performance. Because ephedra increased the risk for heart problems and stroke, the U.S. Food and Drug Administration (FDA) banned the sale of ephedra.
- Some CAM products interfere with how prescription drugs work. For instance, St. John's wort, which some



people take to treat depression, can interfere with the actions of drugs for treating HIV infection, cancer, and other diseases. It may also reduce the effectiveness of birth control pills.

- Some herbal products, such as black cohosh, are unsafe to use during pregnancy. The safety of many other herbal products, either during pregnancy or breastfeeding, has not been studied.
- Some people might use an unproven CAM treatment that may not work or carry risks, instead of a conventional treatment that is known to be effective.

If you choose to try a CAM treatment, be sure to discuss it first with your doctor. Your doctor should know whether the therapy may be helpful and is safe to try along with your current treatments. Some people don't mention their use of CAM treatments to their doctor because they think that their doctor will have negative feelings about CAM. If you are in this situation and would like to try a CAM treatment, perhaps you may want to find a doctor that you feel more comfortable talking to about this.

# **CAM Treatment Categories**

- · CAM treatments found in nature
- · Energy medicine
- · Therapies that adjust the body
- · Mind-body medicine
- · Whole medical systems

#### **CAM treatments found in nature**

Some CAM treatments use substances found in nature, such as herbs, vitamins, and minerals. The idea that natural substances might be used as medicines is not new. Practically since the beginning of time, people have used parts of plants and animals to treat diseases. In fact, some conventional drugs come from nature. For instance, aspirin is derived from a substance found in the bark of the willow tree.

Some CAM products are sold as dietary supplements. These are products taken by mouth that are intended to supplement, or add to, the diet. They come in many forms, including tablets, teas, and powders.

### **Label Regulations**

The FDA regulates dietary supplements as foods rather than drugs. The laws about putting foods (including supplements) on the market are less strict than the laws for drugs. For instance, a manufacturer does not have to prove that a supplement is useful for treating any health problem before it is sold.

Some dietary supplements have been shown not to contain what was listed on the label. In some cases, pills did not contain as much of the supplement as the label said they did, or they contained more. In other cases, supplements were found to be contami-

nated with toxins, bacteria, or other substances. To address these problems, the FDA has issued new regulations requiring that:

- a dietary supplement contains what its label says it contains and in the dose listed on the label
- · is not contaminated

The new regulations took effect in August 2007 and will be phased in over three years.

Below are some CAM products found in nature that have been tried for various diseases and medical conditions:

# Black cohosh and other plant products for treating menopausal symptoms

Black cohosh is often used for treating hot flashes and other menopausal symptoms. Research has generally shown that black cohosh by itself has little to no effect on menopausal symptoms. But one research study found that black cohosh combined with St. John's wort was somewhat effective in treating these symptoms.

Research studies have followed women taking black cohosh for only 6 months or less, so it's not known if the herb is safe to take for periods longer than 6 months.

Black cohosh has been linked to a few cases of hepatitis (inflammation of the liver), but it is not clear whether black cohosh caused the problem.



Other plant products that have been used for treating menopausal symptoms include:

- Red clover. Research has not shown red clover to be effective in reducing hot flashes.
- Dong quai (doong chway). Research
  has not shown dong quai to be effective in reducing hot flashes. It also
  contains substances that may cause
  cancer.
- Ginseng. Research has shown that ginseng might help menopausal symptoms such as insomnia, depression, and feeling tired. But it does not seem to reduce hot flashes.
- Kava. Kava may decrease anxiety but does not seem to reduce hot flashes.
   The FDA has issued a warning about kava because it can damage the liver.
- Soy. Research on the effects of soy on hot flashes has produced mixed results. When taken as a food or dietary supplement for short periods of time, soy appears to have few if any serious side effects. But taking soy extracts for several years may cause thickening of the uterine lining. This can cause abnormal vaginal bleeding.

### Cranberry

We normally think of cranberry as a food. But research suggests that cranberry can also be used for its health benefits. Cranberry—in the form of juice or tablets—may be able to prevent urinary tract infections in women. Cranberries contain a substance that prevents bacteria from sticking to cell walls in the urinary tract.



#### **Echinacea**

Echinacea (EK-ih-NAY-shuh) is commonly used to prevent or treat colds, flu, and other infections that affect breathing. Research suggests that echinacea is not effective in preventing or treating colds in adults. One research study showed that echinacea was not effective in treating colds and similar infections in children but reduced the chances that the children would develop them again later.



ECHINACEA FLOWER, ALSO CALLED PURPLE CONEFLOWER



#### Ginger

Research suggests that ginger can relieve the nausea and vomiting of pregnancy. In research studies, pregnant women were given about one gram of ginger per day, which is about the amount commonly used in cooking. They took the ginger for up to three weeks. No serious side effects occurred using ginger in these amounts and for this length of time. But some herbal medicine textbooks caution against using larger amounts of ginger. If you are pregnant and considering using ginger, discuss it with your doctor.

# **Energy medicine**

Some CAM therapies involve using different types of energy to treat illness. Some of these therapies use energies that everyone agrees exist, such as the energy field surrounding magnets. Other therapies claim to use a "life energy," which may or may not exist.

### **Magnetic Therapy**

Magnets have been used at least since the time of the ancient Egyptians to treat medical problems. The magnets that we are most familiar with are static magnets. These are usually made of iron or steel and their magnetic fields are static, meaning that they do not change. Refrigerator magnets are a type of weak static magnet.

Static magnets have been used to treat painful conditions, such as painful menstruation. Typically, magnets are placed directly on the skin or into products that come into contact with the body, such as bandages.

Research studies on the use of static magnets to relieve pain have produced mixed results. Some experts say that research studies that have shown pain relief have used stronger magnets than those that have not shown pain relief.

Another type of magnet is the electromagnet. Electromagnets consist of an iron core surrounded by a wire coil. When electricity flows through the coil, the iron core produces a magnetic field. When the electricity is turned off, the magnetic field goes away. In general, research studies using electromagnetic therapy to reduce pain have produced more positive results than those using static magnets.

### "Life energy" therapies

The idea that a special type of "life energy" flows through people's bodies is common among cultures around the world. For instance, the ancient Chinese



called it qi (chee), while ancient Hindus called it prana (PRAH-nuh). Also common is the idea that certain "healers" can treat illnesses by passing their life energy into others. They do this by holding their hands on or near a person's body. In Japan, this is known as Reiki (RAY-kee). In Western cultures, it's called therapeutic touch, laying on of hands, or polarity therapy. Some researchers have claimed to detect an unique form of energy given off by healers. But the findings of these research studies are controversial.

In research studies, energy healing seemed to:

- reduce pain in conditions involving muscles, bones, and joints
- help women receiving radiation treatment for cancer feel more energetic and less pain

In other research, energy healing did not seem to be effective. These research studies showed that energy healing:

- had no effect on the nerve pain that can occur in diabetes
- had no useful effect in people recovering from a stroke

### Therapies that adjust the body

Some CAM practices involve handling, pressing, or moving parts of the body. Examples include:

- chiropractic
- osteopathy (OS-tee-OP-uh-thee)
- massage

#### Chiropractic

Chiropractors believe that the body has a natural healing ability that is controlled by the nervous system. They also believe that if the bones in the spine are not sitting on top of each other correctly, they put pressure on nerves along the spine. This can disrupt the flow of nerve signals to parts of the body. If a body part does not receive its normal supply of nerve signals, it becomes diseased, according to this theory.

To make the spinal bones line up straight, chiropractors make one or more "adjustments." A chiropractic adjustment involves applying a sudden controlled force to a joint.

Research suggests that chiropractic adjustments may offer short-term relief for low back pain. On the other hand, most cases of short-term low back pain get better in several weeks no matter what treatment is used.



Chiropractic adjustments for low back pain are generally safe. But there have been cases of stroke following neck adjustments because of the tearing of arteries leading to the brain. There has also been concern that some chiropractors overuse X-rays, which may increase your risk for cancer.

### **Osteopathy**

Osteopaths believe that the bones and muscles of the body need to be positioned properly so that blood and other body fluids flow as they should. This helps ensure health, according to the theory. In treating a new patient, an osteopath will first feel the patient's body to find areas with tense muscles and where joints do not move well. They then manipulate parts of the body to relieve

these areas of muscle tension and help the joints move more smoothly. Manipulation techniques include:

- thrust technique, in which the osteopath applies a brief rapid force to a joint, often causing a "popping" noise
- muscle energy, in which the osteopath directs the patient to move into a certain position while providing a specific amount of resistance against the movement
- myofascial release, in which the osteopath gently applies force to a tense body area

Osteopaths receive training in conventional medicine as well as osteopathic medicine. Because of this, osteopaths can prescribe drugs and perform surgery.

As with chiropractic, research suggests that osteopathic manipulations may be useful for treating low back pain.

### Massage

Massage therapists press, rub, or move muscles and other soft tissues of the body. Most people use massage to reduce muscle soreness and tension and relieve stress and anxiety.



Research suggests that massage therapy may be useful in treating various conditions, including:

- · fibromyalgia
- · osteoarthritis of the knee
- anxiety

Also, research has shown that preterm infants who receive daily massage treatments gain more weight per day and show fewer stress behaviors than those who do not receive these treatments.

### Mind-body medicine

Perhaps you have noticed that your mood can affect whether or not you get sick. If you feel well, you are less likely to get sick. If you feel badly, you are more likely to get sick. In fact, research has shown that mood can affect your health. For instance, in one research study, people who were energetic, happy, and relaxed were less likely to develop a cold even though they were infected with a cold virus than were people who were sad, tense, and angry.

Mind-body medicine is a branch of CAM that seeks to understand how your mind and body affect each other. Mind-body therapies attempt to use this information to improve your health. Two examples of mind-body therapies are biofeedback and hypnosis.

#### Biofeedback

Biofeedback allows people to control things about their body that they ordinarily would not be able to control. These include heart rate, skin temperature, and muscle tension. During a biofeedback session, therapists apply electrical sensors



SENSORS USED IN BIOFEEDBACK

to parts of a client's body. These sensors measure something about the body that would be useful to control. For instance, someone who gets tension headaches because of increased muscle tension in the head would have sensors on the head to detect muscle tension. When the muscles become more tense, this is made known to the client by a beeping sound or a flashing light. The client learns to turn off the sound or light by relaxing head muscles. This helps get rid of the headache.

Biofeedback has been shown to be helpful in treating a variety of medical conditions, including:

- · high blood pressure
- hot flashes
- irregular heartbeats

# **Hypnosis**

Hypnotists try to produce a mental state in which you are more open to suggestions. To hypnotize someone, a therapist will first get them to relax and concentrate on an object. Then the therapist will tell them something, such as "You will nut feel pain when you give birth."



Research has shown that hypnosis can be useful for:

- reducing labor pain
- reducing anxiety before medical or dental procedures
- treating tension headaches

Not everyone can be hypnotized. Research suggests that people who can become absorbed in activities such as reading, listening to music, or daydreaming have a greater ability to be hypnotized.

### Whole medical systems

Whole medical systems are health care methods that have evolved separately from conventional Western medicine. Each medical system involves several therapies that are often used in combination.

#### **Traditional Chinese medicine**

Traditional Chinese medicine includes:

 acupuncture, a treatment that involves inserting thin needles into specific points on the skin

- moxibustion (MOK-si-BUS-chen), the burning of the herb moxa (MOKsa) (also known as mugwort) at an acupuncture point to stimulate the point with heat
- Chinese herbal medicines

The part of traditional Chinese medicine that has been studied the most in terms of its health effects is acupuncture. Acupuncture was developed in China more than 2000 years ago. According to ancient Chinese beliefs, disease is due to a blockage in the flow of qi energy through the body. Inserting needles into acupuncture points unblocks qi to restore health, according to this theory. Modern scientists think that acupuncture may work by causing the release of natural painkillers in the brain.

Research has shown that acupuncture may be useful for reducing:

- pain following dental procedures
- severe vomiting that can occur during pregnancy
- labor pain
- pain in osteoarthritis of the knee



Also, research suggests that acupuncture plus moxibustion may cause a breech baby to move to the head-down position, which allows for a normal vaginal birth. Before birth, most babies are in this head-down position in the mother's uterus. But sometimes the part of the baby that is down near the vagina is the buttocks or the feet. When a baby is in one of these positions before birth, it's called a breech baby. Doctors often deliver breech babies by cesarean section.

Compared with acupuncture, less research has been done on the health effects of Chinese herbal medicines. But drugs for treating malaria have been developed from one Chinese herbal medicine.

### Ayurveda

Ayurveda (AH-yur-VAY-duh) is one of the world's oldest systems of medicine. It started in India over 5000 years ago. Ayurveda involves many different treatments, including:

herbal medicines

# Warning

Some Chinese and Ayurvedic herbal medicines have been found to contain toxic metals and other harmful substances. Some Chinese herbal medicines have also been found to contain prescription drugs that were not listed on the label. Before taking any Chinese or Ayurvedic herbal medicines, you should talk to your doctor. For information about new FDA regulations to address problems with dietary supplements, which includes these medicines, see page x.



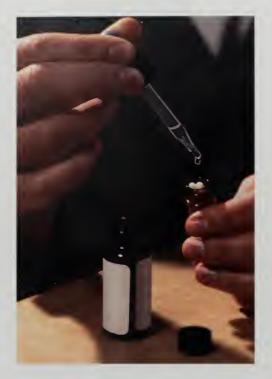
- meditation
- yoga (a system of exercises designed to help you gain control of your body and mind)

Research on Ayurvedic treatments is still in the early stages. But a number of Ayurvedic herbs and spices are showing promise in treating various diseases. For instance, tumeric, a spice that is often used in Ayurvedic treatments, contains a substance that may help treat Alzheimer's disease.

# Homeopathy

Homeopathy (HOH-mee-OP-uh-thee) is a medical system developed in Germany in the early 1800s. It is based on the idea that drugs that produce symptoms similar to those of a disease can help cure that disease. Homeopathic products contain these drugs in very small doses dissolved in water or alcohol.

Homeopathic products have been tried for many health issues, including menopausal hot flashes and premenstrual syndrome. A few research studies have shown homeopathic products to work for some conditions. But many experts question these results because homeo-



pathic products contain such small doses of the active drug. More research is needed before homeopathy can be considered useful for any medical condition.

### Tips on selecting a CAM therapist

Selecting a CAM therapist is much like selecting a conventional doctor. You want someone that you feel comfortable with and who will help you with your health concerns. Below are some tips for choosing a CAM therapist:

 Talk with your primary care doctor about your interest in trying a CAM therapy. Discuss possible benefits and risks of the therapy. Ask if the therapy might interfere with your conventional treatments. Also, ask your doctor if

- they can recommend someone who practices the type of therapy that you are interested in.
- Some large medical centers have CAM therapists on staff. Check to see if there is such a center near you.
- Contact a national association for the therapy that you are interested in and ask for a list of certified therapists in your area. To find CAM associations, ask your local librarian for directories that you can look in.
- Some states have agencies that regulate and license certain types of CAM therapists. The agency may be able to provide you with a list of therapists who meet their standards.
- Find out if your health insurance company will cover your visit to a CAM therapist. Most CAM therapies are not covered by insurance.
- After you choose a CAM therapist, come to your first visit with a list of questions that you want answered.
   Also, be prepared to discuss your health history and the other treatments that you are receiving.

#### A final word

Be sure to mention any CAM therapies that you are considering trying with your primary care doctor. Your doctor will be able to tell you about the possible benefits and risks of the treatment. Also, when it comes to CAM therapies, it is probably best to steer a middle course. Keep an open mind but, at the same time, be skeptical.

# One Woman's Story

I have found massage therapy to be a very valuable complementary therapy. As a single mother, raising four children, I have over the years worked through periods of extreme stress. This overload of stress has contributed to severe headaches, shoulder, and back pain. I have found that getting a good massage is the single most effective intervention to reduce stress and relieve the muscle tension resulting from too many hours in front of a computer.

Several years ago, while sitting at a red light in my car, I was struck from behind and suffered a whiplash injury to my neck. I suffered terribly for months with pain, and none of the typical treatments provided relief. Not content Massage therapy has been a safe and effective complementary therapy for me.

to spend my evenings doped up on pain killers and muscle relaxers and unable to participate in my children's lives, I visited my massage therapist, who also was trained in cranial sacral therapy. After just a few sessions of cranial sacral therapy and massage, the pain from the whip lash injury went away and has never returned.

Massage therapy has been a safe and effective complementary therapy for me. If we all had bi-weekly massages, perhaps we as a nation would be healthier!

Sarah

Olney, MD

# For More Information...

# National Center for Complementary and Alternative Medicine, NIH

PO Box 7923 Gaithersburg, MD 20898 Web site: nccam.nih.gov Phone number: (888) 644-6226,

(866) 464-3615 TTY

# Office of Cancer Complementary and Alternative Medicine, NCI, NIH

6116 Executive Blvd., Suite 609, MSC8339 Bethesda, Maryland 20892 Web site: www.cancer.gov/cam Phone number: (800) 422-6237

#### Office of Dietary Supplements, NIH

6100 Executive Blvd., Room 3B01, MSC7517 Bethesda, MD 20892-7517 Web site: ods.od.nih.gov

#### American Academy of Medical Acupuncture

4929 Wilshire Blvd, Suite 428 Los Angeles, CA 90010 Web site: www.medicalacupuncture.org

### **American Chiropractic Association**

1701 Clarendon Blvd, Arlington, VA 22209 Web site: acatoday.org

#### **American Holistic Medical Association**

PO Box 2016 Edmonds, WA 98020 Web site: www.holisticmedicine.org

### **American Massage Therapy Association**

500 Davis St, Suite 900 Evanston, IL 60201-4695 Web site: www.amtamassage.org Phone number: (877) 905-2700

#### **American Osteopathic Association**

142 East Ontario St Chicago, IL 60611 Web site: www.osteopathic.org Phone number: (800) 621-1773

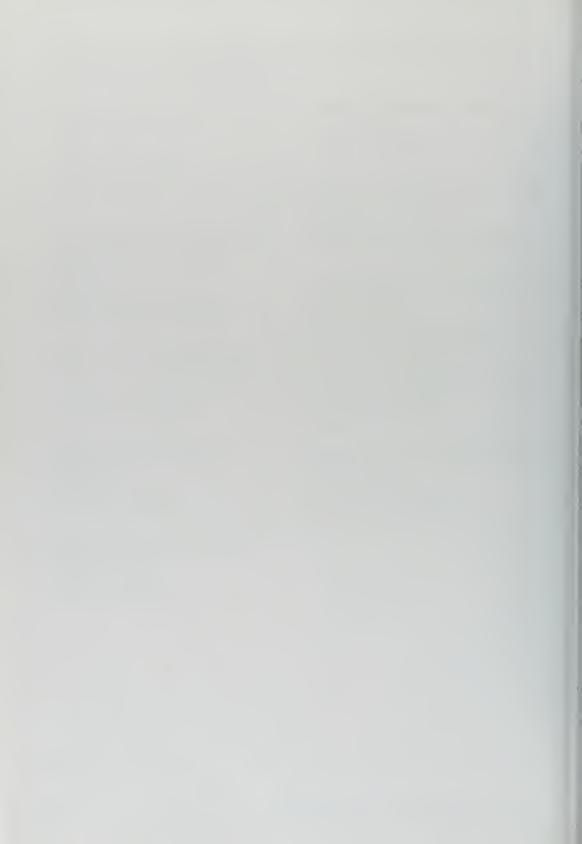
#### **American Society of Clinical Hypnosis**

140 N Bloomingdale Rd Bloomingdale, IL 60108 Web site: www.asch.net

# Association for Applied Psychophysiology and Biofeedback

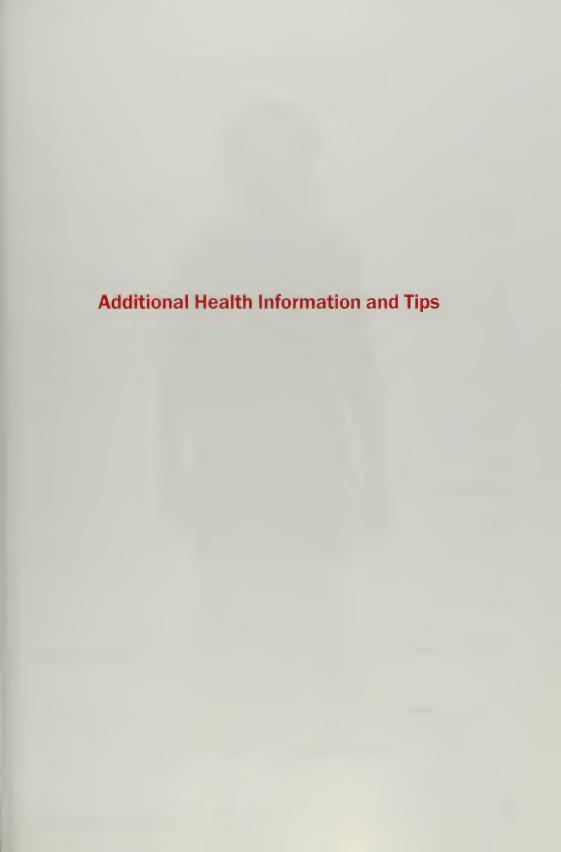
10200 W 44th Ave, Suite 304 Wheat Ridge, CO 80033 Web site: www.aapb.org

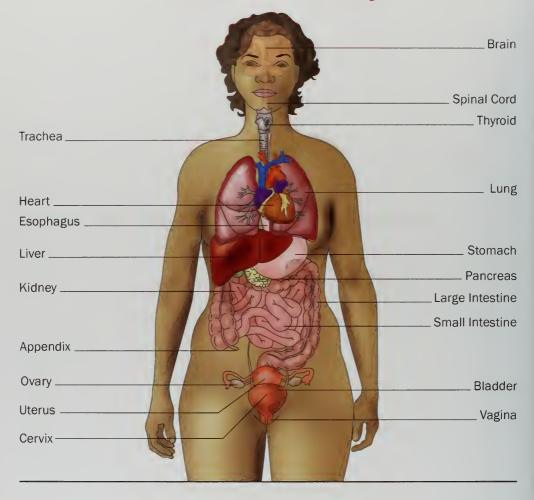




# **Appendix**







# **Women's Body System**

Cardiovascular and Circulatory—heart, lungs, arteries, veins

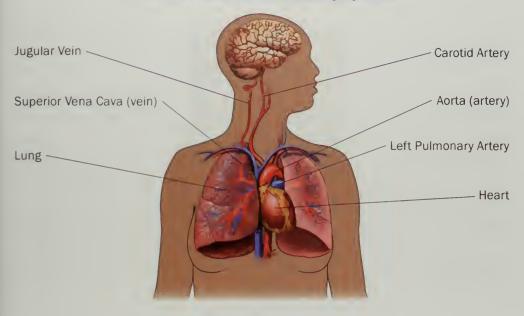
**Digestive (gastrointestinal)**—esophagus, liver, stomach, pancreas, large intestine (colon), small intestine, appendix, rectum, anus

Endocrine-thyroid, ovaries, pancreas

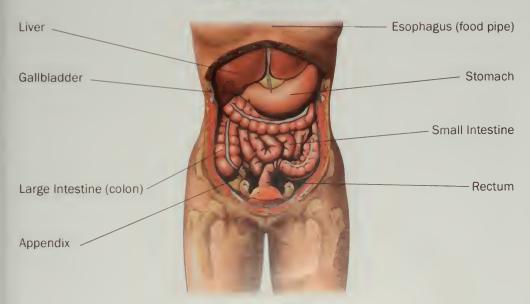
**Nervous (neurological) and Skeletal**—brain, nerves, spinal cord, bones, joints **Reproductive**—ovaries, fallopian tubes, uterus, cervix, vagina, breasts

Respiratory—lungs, nose, trachea (windpipe)

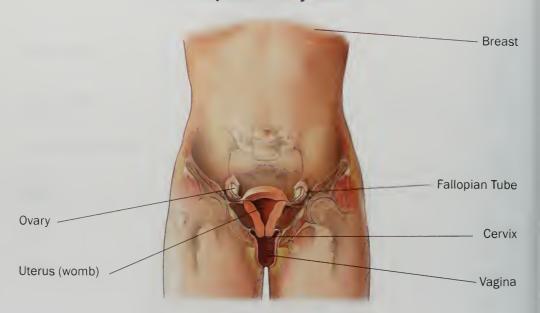
## **Cardiovascular and Circulatory System**



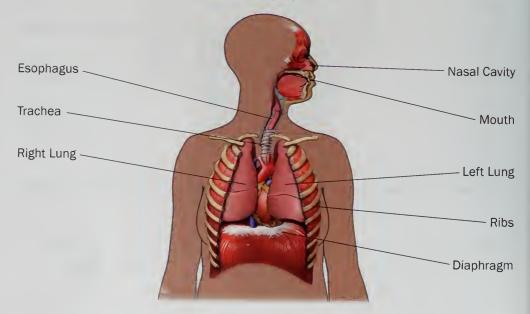
# **Digestive System**



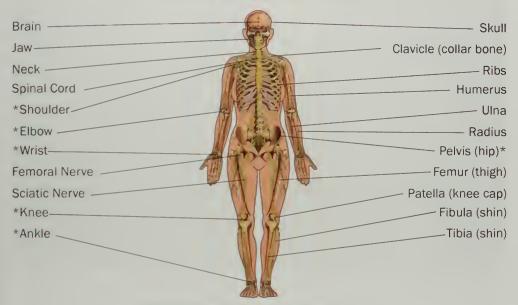
### **Reproductive System**



## **Respiratory System**

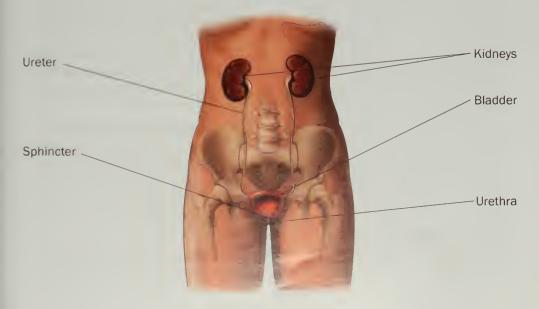


# **Skeletal and Nervous System**



<sup>\*</sup>Major joints where arthritis or joint disease can occur.

# **Urinary System**



# **HOW TO**

# Talk to Your Doctor or Nurse

Waiting in your doctor's office can make you feel nervous, impatient, or even scared. You might worry about what's wrong with you. You might feel annoyed because you're not getting other things done. Then when you see your doctor or nurse, the visit seems to be so short. You might have only a few minutes to explain your symptoms and concerns. Later that day, you might remember something you forgot to ask. You wonder if your question and its answer matters. Knowing how to talk to your doctor, nurse, or other members of your health care team will help you get the information you need.

### **Tips: What To Do**

- List your questions and concerns.

  Before your appointment, make a list of what you want to ask. When you're in the waiting room, review your list and organize your thoughts. You can share the list with your doctor or nurse.
- Describe your symptoms. Say when these problems started. Say how they make you feel. If you know, say what sets them off or triggers them. Say what you've done to feel better.
- Give your doctor a list of your medications. Tell what prescription drugs and over-the-counter medicines, vitamins, herbal products, and other supplements you're taking.
- Be honest about your diet, physical activity, smoking, alcohol or drug use, and sexual history. Not sharing information with your doctor or nurse can be harmful!
- Describe any allergies to drugs, foods, pollen, or other things. Don't forget to mention if you are being

- treated by other doctors, including mental health professionals.
- Talk about sensitive topics. Your doctor or nurse has probably heard it before! Don't leave something out because you're worried about taking up too much time. Be sure to talk about all of your concerns before you leave. If you don't understand the answers your doctor gives you, ask again.
- Ask questions about any tests and your test results. Get instructions on what you need to do to get ready for the test(s). Ask if there are any dangers or side effects. Ask how you can learn the test results. Ask how long it will take to get the results.
- Ask questions about your condition or illness. If you are diagnosed with a condition, ask your doctor how you can learn more about it. What caused it? Is it permanent? What can you do to help yourself feel better? How can it be treated?
- Tell your doctor or nurse if you are pregnant or intend to become preg-



nant. Some medicines may not be suitable for you. Other medicines should be used with caution if you are pregnant or about to become pregnant.

- Ask your doctor about any treatments
  he or she recommends. Be sure to ask
  about all of your options for treatment.
  Ask how long the treatment will last.
  Ask if it has any side effects. Ask how
  much it will cost. Ask if it is covered
  by your health insurance.
- Ask your doctor about any medicines he or she prescribes for you. Make sure you understand how to take your medicine. What should you do if you miss a dose? Are there any foods, drugs, or activities you should avoid when taking the medicine? Is there a generic brand of the drug you can use? You can also ask your pharmacist

if a generic drug is available for your medication.

- Ask more questions if you don't understand something. If you're not clear about what your doctor or nurse is asking you to do or why, ask to have it explained again.
- Bring a family member or trusted friend with you. That person can take notes, offer moral support, and help you remember what was discussed. You can have that person ask questions, too!
- Call before your visit to tell them if you have special needs. If you don't speak or understand English well, the office may need to find an interpreter. If you have a disability, ask if they can accommodate you.

# **HOW TO**

# Get a Second Opinion

Even though doctors may get similar medical training, they can have their own opinions and thoughts about how to practice medicine. They can have different ideas about how to diagnose and treat conditions or diseases. Some doctors take a more conservative, or traditional, approach to treating their patients. Other doctors are more aggressive and use the newest tests and therapies. It seems like we learn about new advances in medicine almost every day.

Many doctors specialize in one area of medicine, such as cardiology or obstetrics or psychiatry. Not every doctor can be skilled in using all the latest technology. Getting a second opinion from a different doctor might give you a fresh perspective and new information. It could provide you with new options for treating your condition. Then you can make more informed choices. If you get similar opinions from two doctors, you can also talk with a third doctor.



### **Tips: What To Do**

- Ask your doctor for a recommendation. Ask for the name of another doctor or specialist, so you can get a second opinion. Don't worry about hurting your doctor's feelings. Most doctors welcome a second opinion, especially when surgery or long-term treatment is involved.
- Ask someone you trust for a recommendation. If you don't feel comfortable asking your doctor for a referral, then call another doctor you trust. You can also call university teaching hospitals and medical societies in your area for the names of doctors. Some of this information is also available on the Internet.
- Check with your health insurance provider. Call your insurance company before you get a second opinion. Ask if they will pay for this office visit.



Many health insurance providers do. Ask if there are any special procedures you or your primary care doctor need to follow.

- Ask to have medical records sent to the second doctor. Ask your primary care doctor to send your medical records to the new doctor. You need to give written permission to your current doctor to send any records or test results to a new doctor. You can also ask for a copy of your own medical records for your files. Your new doctor can then examine these records before your office visit.
- Learn as much as you can. Ask your doctor for information you can read.

Go to a local library. Search the Internet. Find a teaching hospital or university that has medical libraries open to the public. The information you find can be hard to understand, or just confusing. Make a list of your questions, and bring it with you when you see your new doctor.

• Do not rely on the Internet or a telephone conversation. When you get a second opinion, you need to be seen by a doctor. That doctor will perform a physical examination and perhaps other tests. The doctor will also thoroughly review your medical records, ask you questions, and address your concerns.

# **HOW TO**

# Be Prepared for Emergencies

When disaster strikes, you may not have much time to act. To help protect loved ones, take simple steps now to prepare your family for sudden emergencies or other disasters.



# Three Basic Steps for Disaster or Emergency Preparedness

- **1.KNOW** what natural or other disasters could occur in your area and how to prepare for them. Learn about local evacuation routes, so that you know how to leave an area quickly. The Federal Emergency Management Agency offers information on preparedness at www.fema.gov.
- 2.PLAN out on paper the steps you should take during an emergency and give family members a copy. Talk about potential disasters or emergencies and how to respond to each. Choose a meeting place, other than your home, for family members to gather in case you can't go home. Make sure you choose an "emergency

- check-in" contact person and teach your children the phone number for this person.
- 1.PACK emergency supplies in your home to meet your needs for three days. Always keep all of your important documentation together, in one place, in case you have to "grab and go" during an evacuation.

# Need to Evacuate? Have a Kit Ready that Includes

- identification for yourself and your children, such as birth certificates and social security cards
- important personal papers, such as health insurance identification cards, immigration papers, and children's school records
- funds in the form of cash, traveler's checks, credit cards, and checkbook
- keys to the house, car, and safety deposit box or post office box
- ways to communicate, including a calling card, cell phone and extra battery, and the emergency check-in number for family members to call
- prescription medications, including written prescription orders, and supplies such as contact lens cleaner and feminine hygiene products

# **Essential Items for Disaster Preparedness**

Relief workers will most likely be on the scene after a disaster, but they cannot reach everyone immediately. Gather the supplies below in case you have to stay where you are.

Water. Keep at least a 3-day supply of water for each person, stored in plastic containers. Each person needs 1 gallon of water each day.

Food. Store at least a 3-day supply of non-perishable food such as canned meat, beans, vegetables, fruit and juices; peanut butter or other high-energy food; and unsalted crackers. Keep a non-electric can opener handy. If you have pets, stock up on canned pet food.

**Infant care.** Store baby formula and water to prepare it if a child is not breastfed. If you need to evacuate quickly, bring towels or sheets to carry a baby instead of a bulky stroller.

Other supplies. Make sure you have large plastic bags that seal for water-proofing important papers, a battery-powered flashlight and radio with extra batteries, and a first aid kit.

### Breastfeeding During an Emergency

When an emergency occurs, breastfeeding saves lives.

- Breastfeeding protects babies from the risks of a contaminated water supply.
- Breastfeeding helps protect against respiratory illnesses and diarrhea diseases that can be fatal in populations displaced by disaster.



The basics of breastfeeding during an emergency are much the same as they are in normal times. Continuing to breastfeed whenever the baby seems hungry maintains a mother's milk supply and is calming to both mother and baby. Visit www.lalecheleague.org for information on how to breastfeed in an emergency, even if you have been giving your baby formula. See the *Breastfeeding* chapter on page 167 for more general information.

# Food and Water Safety During an Emergency

Food may not be safe to eat during and after an emergency. Water may not be safe to drink, clean with, or bathe in after an emergency such as a hurricane or flood because it can become contaminated with bacteria, sewage, agricultural or industrial waste, chemicals, and other substances that can cause illness or death. The Centers for Disease Control and Prevention has information about keeping your food and water safe at www.bt.cdc.gov/disasters/foodwater.

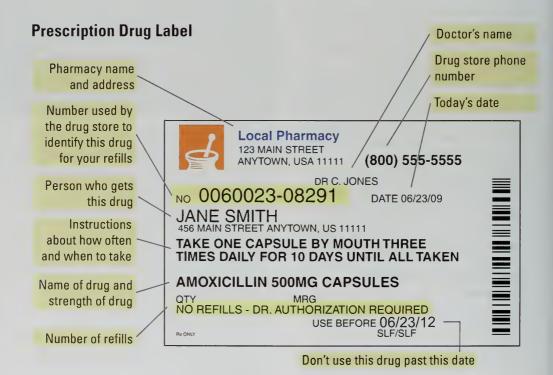
# Staying Safe from Violence During an Emergency

After disasters, women are at greater risk of sexual assault or other violence. Visit www.womenshealth.gov/violence for safety tips.

# **HOW TO**

# Read Drug Labels

Medicines, or drugs, come as either prescription or over the counter. Prescription drugs are used under a doctor's care. Over-the-counter drugs can be bought and used without a doctor's prescription, and you buy them at a drug store or grocery store. When using any kind of drug, it's really important to read the drug label for instructions. Not following the instructions can hurt your health. Read the label each time you use a drug, just in case there have been changes to it since the last time you used it. See the drug label below and on the next page to know what to look for. If you read the label and still have questions, call your doctor, nurse, or pharmacist for help.



#### Over-the-Counter (OTC) Medicine Label

**Drug Facts** Therapeutic Active ingredient (in each tablet) Purpose Product type substance in drug Chlorpheniramine maleate 2 mg Antihistamine Uses temporanly relieves these symptoms due to hay fever Symptoms or or other upper respiratory allengies: diseases the drug ■ sneezing ■ runny nose ■ itchy, watery eyes ■ itchy throat treats Warnings Ask a doctor before use if you have glaucoma a breathing problem such as emphysema or chronic bronchitis. When not to use ■ trouble urinating due to an enlarged prostate gland this drug, when to Ask a doctor or pharmacist before use if you are taking stop taking it. tranquilizers or sedatives when to see a When using this procuct doctor, and Avoid alcoholic drinks You may get drowsy ■ Alcohol, sedatives, and tranquilizers may increase possible side drowsiness effects ■ Be careful when driving a motor vehicle or operating machinery ■ Excitability may occur, especially in children if pregnant or breastfeeding, ask a health professional Keep out of reach of children. In case of overdose, get medical help or contact a Poison Control Center right away. **Directions** Read carefully: Adults and children Take 2 tablets every 4 to 6 hours; how much to take. 12 years and over not more than 12 tablets in 24 hours how to take it, and Children 6 years Take 1 tablet every 4 to 6 hours; to under 12 years not more than 6 tablets in 24 hours how long to take it Children under 6 years | Ask a doctor More information Other information Store at 20-25° C (68-77° F) ■ Protect from excessive moisture on how to store Other things in the the drug Inactive ingredients D&C yellow no. 10, lactose, drug, such as magnesium stearate, microcrystalline cellulose, pregelatinized

starch

colors or flavorings

### **Environmental Health**

The quality of the environment can affect women's health. Chemicals and other substances in the air, water, soil, and food may be toxic and cause health problems. The quality of the environment may have a greater impact on children than adults. This is because children are growing quickly and breathe more air, eat more food, and drink more water. Some toxins can be passed from mother to child during pregnancy or breastfeeding. If you are pregnant, nursing, or planning to become pregnant, talk to your doctor about environmental exposures you should avoid.

#### **Outdoor air**

There are many sources of pollution outdoors, such as emissions from cars and trucks, power plants that burn fossil fuels, factories, and forest fires.

Outdoor air pollution can irritate your eyes, nose, and throat. At high levels, some outdoor air pollutants may cause more serious health problems like cancer and lung damage. Children, the elderly, and people with heart or lung conditions are more likely to be affected by some types of outdoor air pollution.

The U.S. Environmental Protection Agency (EPA) protects the quality of the air throughout the country. However, some areas may have higher levels of outdoor air pollution than others. Find out about the air quality in your community. Check the daily Air Quality Index (AQI) in your local radio, television, or newspaper forecast. You can also



find your AQI online at the EPA's web site.

You can reduce your exposure to air pollution by limiting outdoor activities when the AQI is high. By using less energy, you can help reduce the air pollution that comes from burning fossil fuels.

- Replace incandescent light bulbs with compact fluorescent bulbs.
- Turn off lights and appliances when they're not in use.
- Reuse and recycle to conserve raw materials and energy.
- Buy ENERGY STAR appliances.
- Choose a vehicle with good fuel economy and low emissions.
- Drive less. Carpool, walk, bike, or use public transportation if you can.

#### Indoor air

Indoor air pollution can irritate your eyes, nose and throat. It can cause headaches or make you feel dizzy or tired. These symptoms may seem similar to the symptoms of a cold or flu. But if your symptoms disappear when you are away

from home, you may have an indoor air problem.

Indoor air pollution can also lead to serious health problems, such as heart and lung diseases and cancer. These problems may develop many years after exposure or after repeated exposures to indoor air pollutants.

Children, the elderly, and people with heart or lung conditions are more likely to be affected by indoor air pollution.

Some common sources of indoor air pollution include:

- · Gases from burning oil, gas, coal, wood used for heating and cooking
- Smoke from tobacco products
- Building materials, such as asbestos insulation and products made from pressed wood
- · Outdoor pollutants, such as radon, that can build up indoors
- · Chemicals used for cleaning, pest control, and painting
- Personal care products such as hair spray and nail polish remover
- Biological pollutants, such as bacteria, molds, mildew, and pet dander.

You can improve the air quality in your home:

- Remove sources of pollution.
- Increase the ventilation (flow of air). Run exhaust and attic fans or open doors and windows. This is especially important when using household products that contain harmful chemicals.
- · Use a home air cleaner to remove pollutants, if necessary.

#### Water quality

EPA sets standards for safe drinking water. Public water systems must meet these standards. Tap water, well water, and even bottled water may contain very small amounts of contaminants such as chemicals and bacteria. As long as levels are low enough to meet EPA's safety standards, your water is safe to drink.

You can take steps to make sure your water is safe to drink.

- People with weakened immune systems, infants, children, and the elderly may be more sensitive to some contaminants. Talk to your doctor about whether you need to take extra precau-
- If your water comes from a private well, have your water tested at least once a year. Contact your local, county, or state health department for more information about water testing. Some health departments may help you with testing. If not, they can recommend a state-certified laboratory in your area.
- · If your water comes from a public source, your water supplier is required to send you an annual water quality report.



#### Lead

Lead exposure can cause reproductive problems, high blood pressure, muscle and joint pain, and problems with memory or concentration. Lead can harm the developing brain and nervous system of children, infants, and unborn children.

Some common sources of lead exposure include:

- Lead-based paint in houses built before 1978
- Soil and household dust that may contain chips or dust from lead-based paints
- Water from lead-lined pipes.

You can reduce your exposure to lead.

- Have your home tested for lead.
- If you plan to remove or disturb leadbased paint, hire a contractor with special training. Leave the house until renovations are complete and the house is cleaned to remove any lead dust.
- Use only cold water to cook or to make baby formula.
- Run cold water for at least one minute before using it.
- Use a water filter certified by NSF (National Sanitation Foundation) International to remove lead.

#### Mercury

In both children and adults, high levels of mercury may affect the brain, heart, kidneys, lungs, and immune system. Children, infants, and unborn babies are most sensitive to mercury.

The most common source of exposure to mercury is fish and shellfish, which contain small amounts of mercury. Different kinds of fish contain different amounts. Women who may become pregnant, women who are pregnant or nursing, and young children should follow these guidelines:

- Don't eat shark, swordfish, king mackerel, or tilefish.
- Eat no more than 12 ounces (about 2 meals) of fish low in mercury each week. Low-mercury fish include shrimp, canned light tuna, salmon, pollock, and catfish.
- Eat no more than 6 ounces (about 1 meal) of albacore (white) tuna each week.
- Before eating fish caught in your area, check local fish safety advisories.

Mercury may also be found in thermometers, thermostats, and fluorescent light bulbs. If these items break, people may be exposed to mercury. Do not use a vacuum to clean mercury spills. Contact





your local health department to find out how to properly clean and dispose of spilled mercury.

#### **Pesticides**

Chemicals used to kill pests such as insects, rodents, and mold can also affect human health. At high levels, pesticides may cause birth defects, nerve damage, and cancer.

Small amounts of pesticides may be found in air, water, and food. EPA limits pesticides used in farming to make sure your food is safe. Pesticides used in and around your home may contribute to indoor air pollution.

You can reduce your exposure to pesticides.

- Wash and scrub fruits and vegetables under running water, peel off skins, and trim outer leaves.
- Trim fat from your meat.
- Choose organic foods, grown without the use of synthetic pesticides.

- Eat a variety of foods to avoid high exposure to a single pesticide.
- If you use pesticides in your home, follow the instructions carefully. Keep pesticides out of reach of children.

#### Resources:

### U.S. Environmental Protection Agency Web site: www.epa.gov

Indoor Air Quality Information Clearinghouse: www.epa.gov/iaq Phone number: (800) 438-4318

National Lead Information Center: www.epa.gov/lead

Phone number: (800) 424-5323

Safe water information where you live: www.epa.gov/safewater/ccr/whereyoulive.html

### Food Safety Information Center, USDA

Web site: http://foodsafety.nal.usda.gov Phone number: (301) 504-6835

### National Center for Environmental Health, CDC

Web site: www.cdc.gov/nceh Phone number: (800) 232-4636

#### National Institute of Environmental Health Sciences, NIH

Web site: www.niehs.nih.gov

#### National Poison Control Hotline

Web site: www.poison.org Phone number: (800) 222-1222

### Avian Flu

Avian influenza (flu) is not the same as pandemic flu. A flu pandemic is a global outbreak of a flu. A pandemic can happen when a new virus appears that people have little or no immunity against and for which there is no vaccine. (Having an immunity means you are resistant to, or protected against, a disease.) A new virus can spread quickly from person to person around the world, causing severe illness and even death. Although it is hard to know when the next flu pandemic will happen or how dangerous it will be, you can be informed and take steps to prepare your family. Avian flu has received a lot of attention in recent years, raising many questions about the dangers of a flu pandemic.

#### Q: What is avian influenza (flu)?

A: Avian or "bird" flu is caused by influenza viruses that naturally affect birds. Wild birds carry these highly contagious viruses, but they generally do not become sick. Domesticated birds, though, are at great risk. Avian flu can cause very serious illness and death for infected chickens, ducks, and turkeys.

# Q: Why are health officials concerned about avian flu for humans?

A: Although people are not usually at risk of getting avian flu viruses, a virus called H5N1 is one of the few strains that has crossed over to infect people. The H5N1 virus is very powerful, having caused the deaths of more than half of the people infected. Experts think most

of these cases have been caused by contact with infected birds. To date, there has been very limited spread of the virus from person to person. The concern is that H5N1 will change into a virus that can pass from person to person more easily and more quickly. An increasing number of human cases have been found in Asian, European, and African countries. Health officials are watching the situation very closely to prepare for the possibility that the virus may spread to other parts of the world.

### Q: Will getting a seasonal flu shot prevent me from getting avian flu?

A: No. The flu shot can only help protect you from seasonal flu. No vaccine is available to protect against the H5N1 virus that has been found in people, but researchers are working on making one.

### Q: What are the symptoms of avian flu?

A: Symptoms can include regular flu symptoms such as fever, cough, sore throat, and muscle aches. Other symptoms may include eye infections, pneumonia, and severe respiratory problems. There may be other symptoms that we do not yet know about.

### Q: Are there treatments available for avian flu?

A: The H5N1 virus is resistant to two medicines used to treat the flu: amantadine and rimantadine. Two other flu medicines called oseltamavir and zanamivir may work to treat the flu caused

by H5N1. More research is needed to test these medicines. Health researchers are also working on improving flu testing, to better detect which flu strain you have and where it came from. This will help government officials track dangerous flu viruses and help keep the public informed.

### Q: What can I do to help keep my family healthy?

A: You and members of your family can take steps to help limit the spread of germs.

- Wash your hands with soap and warm water often.
- Use an alcohol-based hand cleanser if you don't have soap handy.
- When coughing or sneezing, cover your mouth and nose with a tissue (or your upper sleeve if you don't have a

- tissue), throw used tissue away, and wash your hands afterward.
- If you are sick, stay home.
- It is also important to eat a balanced diet, drink plenty of water, get regular physical activity and get enough rest.

### Q: What should I do to help my family prepare for a flu pandemic?

A: Visit www.pandemicflu.gov to learn how to prepare your family. This web site provides preparation checklists for families and businesses, information for people who deal with poultry, and the latest information on how avian flu is affecting people around the world. If H5N1 does cause a pandemic flu, this web site will offer important safety information. You can also call the Centers for Disease Control and Prevention Hotline at 1-800-CDC-INFO (1-800-232-4636) or 1-888-232-6348 (TDD) 24 hours a day, seven days a week.

www.pandemicflu.gov 1-800-CDC-INFO or 1-888-232-6348 (TDD)

### Caregiver Stress

As the U.S. population ages, more people are faced with the responsibility of caring for elderly loved ones with Alzheimer's disease, cancer, or other health problems. Many parents are also raising children with severe disabilities at home. More often today, these caregivers are continuing to care for children with disabilities well into their adulthood.

The people needing care often need help with basic daily tasks. Caregivers help with a wide range of activities, including:

- · cooking
- feeding
- giving medicine
- bathing
- · running errands

People who do not get paid for providing care are known as informal caregivers or family caregivers. Most informal caregivers are women. Often, these women also have children to take care of and jobs outside the home.

Being an informal caregiver can have many rewards. It can give you a feeling of giving back to a loved one. It can make you feel needed and can lead to a stronger relationship with the person receiving care. On the other hand, caregiving can also take a toll on your mental and physical health.

#### What is caregiver stress?

Caregiver stress is the emotional strain of caregiving. It can take many forms. For instance, you may feel frustrated and angry taking care of someone with dementia who often wanders away or becomes easily upset. Or you may feel guilty because you think that you should be able to provide better care, despite all the other things that you have to do.

### How can I tell if caregiving is putting too much stress on me?

Caregiving may be putting too much strain on you if you have any of the following symptoms:

- · sleeping too much or too little
- gain or loss of a lot of weight
- feeling tired most of the time
- loss of interest in activities you used to enjoy
- · becoming easily irritated or angered
- often feeling sad
- frequent headaches, bodily pain, or other physical problems
- abuse of alcohol or drugs, including prescription drugs

Talk to a counselor, psychologist, or other mental health professional right away if your stress leads you to physically or emotionally harm the person you are caring for.

### How can caregiver stress affect my health?

Research shows that, compared with noncaregivers, caregivers:

- are more likely to be have symptoms of depression or anxiety
- are more likely to have heart disease, cancer, diabetes, and arthritis

- · have a weaker immune response, which can lead to frequent infections and increased risk of cancers
- · have higher levels of obesity
- may be at higher risk for mental decline, including problems with memory and paying attention

#### What can I do to prevent or relieve stress?

First, never dismiss your feelings as "just stress." Caregiver stress can lead to serious health problems and you should take steps to reduce it as much as you can. Tips for reducing caregiver stress:

- · Ask for and accept help.
- Say "no" to requests that are draining, such as hosting holiday meals.
- Stay in touch with family and friends.
- Join a caregiver support group.
- Attend a class to learn how to take care of someone with the disease that your loved one has.
- Prioritize, make lists, and establish a daily routine.
- · Set realistic goals for each day.
- Get an annual medical checkup.
- · Stay active, eat a healthy diet, and try to get enough sleep.

#### What caregiving services can I find in my community?

Caregiving services include:

- transportation
- meal delivery
- home health care services (such as nursing or physical therapy)

- non-medical home care services (such as housekeeping or cooking)
- home modification (changes to the home that make it easier for your loved one to perform basic daily tasks, such as bathing, using the toilet, and moving around)
- legal and financial counseling

#### What can I do if I need a break?

Taking some time off from caregiving can reduce stress. "Respite care" provides substitute caregiving to give the regular caregiver a much-needed break. Respite care may be provided by:

- home health care workers
- adult day-care centers
- short-term nursing homes

#### How do I find out about caregiving services in my community?

Contact your local Area Agency on Aging (AAA) to learn about caregiving services where you live. AAAs are usually listed in the city or county government sections of the telephone directory under "Aging" or "Health and Human Services." The National Eldercare Locator, a service of the U.S. Administration on Aging, can also help you find your local AAA.

#### Resources:

#### Administration on Aging

www.aoa.gov www.eldercare.gov Eldercare Locator: (800) 677-1116

### Family Caregiver Alliance

www.caregiver.org

# Understanding Genetics and Your Health

Humans have between 20,000 and 25,000 genes. Most genes are the same in all people. But small differences in these genes give you a one-of-a-kind look and contribute to your personality and talents. Genes also can affect your health. To understand how, it's helpful to learn what genes do.

#### Genes: your body's blueprint

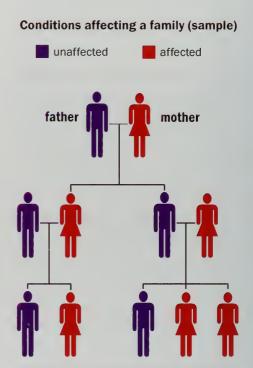
Genes, which are made up of DNA, contain the instructions your body's cells need to function. Genes are located on structures called chromosomes. Information from your genes is used to make proteins. Each cell contains thousands of proteins. Each protein has a specific job to do at a specific time for the cell to work properly.

Sometimes, a gene can have something wrong with it. This is called a gene mutation. A mutation causes the gene to give the wrong instructions for making a protein, so that the protein works improperly or is missing. If the mutation affects a protein that plays a very important role in the body, a medical problem could result. Most gene mutations have no affect on health or development.

#### **Genetic disorders: the basics**

The genes you are born with can affect your health in these ways:

 Single gene disorders are caused by a mutation in one gene. There is a pattern to the way these genetic disorders



We are learning more and more about the role specific genes play in our health. For example, you may have heard about "breast cancer genes," called BRCA genes. All people have BRCA genes. But only women and men born with mutated BRCA genes are at higher risk for breast cancer. Still, some women born with mutated BRCA genes don't get breast cancer. And most women who get breast cancer are born with normal BRCA genes. Keep in mind that genes themselves do not cause disease, but that mutated genes may cause health problems.

show up in families. Even though the mutated gene is passed down from parent to child, not all family members are affected. Some members are "carriers" of the mutated gene. Examples of single gene disorders are cystic fibrosis and sickle cell anemia.

 Chromosome disorders occur when all or part of a chromosome is missing or extra, or if the structure of one or more chromosomes is not normal. This can affect some of the genes. Most chromosome disorders involving whole chromosomes do not run in families. Genes can influence your risk of getting some diseases, such as breast cancer, heart disease, diabetes, and thyroid conditions. But other factors, such as lifestyle and environment, also play a role in developing these conditions. Very rarely, single genes are responsible for these diseases; however, the majority of the time they are due to a combination of genes and environment. The role genes play in developing these conditions often is not known, but our understanding of this continues to grow through research.

### Genetic consultation: what is it and who needs it

A genetic consultation gives information and support to people who have, or may be at risk for, genetic disorders. Some reasons a family might seek genetic counseling are:

 a family history of a genetic condition, birth defect, chromosomal disorder, or cancer

- two or more pregnancy losses, a still-birth, or a baby who died
- a child with a known inherited disorder, birth defect, mental retardation, or developmental delay
- a woman who is pregnant or plans to become pregnant at 35 years or older
- test results that suggest a genetic condition is present
- increased risk of getting or passing on a genetic disorder because of one's ethnic background
- people related by blood who want to have children together

Your doctor can help you find a genetic professional if you might benefit from this service. During a consultation, the genetics professional meets with a person or family to discuss genetic risks or to diagnose, confirm, or rule out a genetic condition. Sometimes, a family chooses to have genetic testing. Most of the time, testing is used to find changes that are linked to genetic disorders. The results can confirm or rule out a condition. Tests also can help to know the chances that a person will get or pass on a genetic disorder. The genetics professional can help a family decide if genetic testing is the right choice for them. ■

Some companies offer genetic tests that you can do yourself through the mail. These tests may not provide true or meaningful information. These tests might even provide harmful information to consumers. Talk to your doctor before using this type of test.

### Becoming a Research Volunteer

Today, women are living longer and healthier lives thanks, in part, to medical research. Because of research studies:

- We know what foods to eat to prevent heart disease.
- Doctors have better tools to detect health problems, such as mammograms for breast cancer.
- New drugs are available to treat diabetes, depression, and other diseases.
- We know that women respond differently than men to some drugs and medical treatments.

Important findings like these are not possible without the help of research volunteers. Many volunteers—and especially women—are needed for research studies. Whether or not to participate in a research study is a personal choice. Getting all the facts about the study will help you decide if volunteering is right for you.

### Frequently asked questions about research studies

#### Are there different kinds of research studies?

Yes. Here are some examples.

• Observational studies follow one or more groups of the same people over a period of time to see how their health changes. A recent example is the Women's Health Initiative. This study tracked 93,676 postmenopausal women for about eight years to learn more about risk factors for heart disease, cancer, and fractures.

- Intervention studies seek to improve people's health by finding ways to change behavior. An example would be a study to see whether teaching people how to read food labels leads to a healthier diet.
- Clinical trials are research studies that test new medical approaches in people. This includes new drugs and other treatments.

#### Where do research studies take place?

Research studies take place in doctors' offices, cancer centers, hospitals, and clinics in towns and cities across the United States and around the world. Some studies are held in a single location. Others involve hundreds of locations at the same time. Many types of organizations and individuals sponsor (fund) research studies. Many clinical trials are sponsored by government agencies or pharmaceutical companies. Some studies require you to travel, but sometimes a blood or other sample is all that is needed to participate.

#### What happens in a research study?

This depends upon the type of study. For example, a study might ask you to keep track of how often you eat certain foods. Or, a study might involve taking a drug and frequent visits to the doctor for tests. For all studies, you will work closely with the research team. The team will give you specific instructions according to the study's "protocol." The protocol is a carefully controlled study plan.

#### Who can participate in a research study?

The study's protocol sets guidelines about who can participate. Sometimes, a person who is willing to participate does not qualify. If this happens to you, don't take the rejection personally. Strict participation guidelines are in place to keep participants safe and to ensure that study results are reliable.

#### Will participation in a research study help me?

Research is not the same as treatment. Sometimes, participation in clinical trials gives you access to new treatments or drugs before they become widely available. These treatments may or may not help you. There also might be unpleasant, serious, or even life-threatening side effects. Or, a study could involve not using a drug that can help you. Even if you are not helped personally, the study results could help many others in the future.

#### How will my safety be protected?

Researchers are required to care for your well being just as the doctors who provide your regular medical care. Also, medical research studies that involve people have federally controlled safeguards, such as an "institutional review board," or IRB. The IRB is a group of people that makes sure that a trial is ethical and the rights of participants are protected. Keep in mind that "protected" doesn't mean the study is risk-free.

#### What is informed consent?

This is the process of learning the key facts about the research study before deciding whether or not to participate. The research team will explain all the study details to you. This includes the purpose of the study, how the trial might

affect your daily life, how long the study will last, and the potential benefits and risks of participating. It's helpful to have a friend or family member with you during this discussion. If you agree to participate after learning all the facts, you will be asked to sign an informed consent form. This is not a contract. By signing the form, you are showing that you understand what is involved.

### Who will pay for my medical care during the trial?

This depends on the study and your health insurance plan. Health plans do cover the costs that are part of your routine medical care. Often health plans do not cover the patient care costs related to clinical trials they deem to be "experimental." In many cases, the research team can help by talking with your plan provider. Also, many states require health plans to cover the costs for certain clinical trials, such as for new cancer treatments. There also are some government programs to help pay the costs of care. The research team can help you sort through any cost issues.

#### Can I quit after the study has begun?

Yes. You can leave a research study at any time. But be sure to tell the research team that you are withdrawing and your reasons why. ■

### Where do I find out about research studies?

Talk to your doctor if you are interested in becoming a research volunteer. You also can find out about clinical trials at www.clinicaltrials.gov.





### **Common Screening and Diagnostic Tests Explained**

Test Name	Definition
Angiogram (AN-jee-uh-gram)	Exam of your blood vessels using x-rays. The doctor inserts a small tube into the blood vessel and injects dye to see the vessels on the x-ray.
Barium enema	A lubricated enema tube is gently inserted into your rectum. Barium flows into your colon. An x-ray is taken of the large intestine.
Biopsy	A test that removes cells or tissues for examination by a pathologist to diagnose for disease. The tissue is examined under a microscope for cancer or other diseases.
Blood test	Blood is taken from a vein in the inside elbow or back of the hand to test for a health problem.
Bone mineral density (BMD) test	Special x-rays of your bones are used to test if you have osteoporosis, or a weakening of the bones.
Bronchoscopy (brong-KOSS-kuh-pee)	Exam of the lungs. A bronchoscope, or flexible tube, is put through the nose or mouth and into your windpipe (trachea).
Clinical breast exam (CBE)	A doctor, nurse, or other health professional uses his or her hands to examine your breasts and underarm areas to find lumps or other problems.
Chest x-ray	An x-ray of the chest, lungs, heart, large arteries, ribs, and diaphragm.
Colonoscopy (koh-luh-NOSS-kuh-pee)	An examination of the inside of the colon using a colonoscope, inserted into the rectum. A colonoscope is a thin, tube-like instrument with a light and lens for viewing. It may also have a tool to remove tissue to be checked under a microscope for disease.
Computed tomographic (toh-muh-GRAF-ik) (CT or CAT) scan	The patient lies on a table and x-rays of the body are taken from different angles. Sometimes, a fluid is used to highlight parts of the body in the scan.
Echocardiogram (ek-oh-KAHR-dee-uh- gram)	An instrument (that looks like a microphone) is placed on the chest. It uses sound waves to create a moving picture of the heart. A picture appears on a TV moniter, and the heart can be seen in different ways.
Electroencephalogram (ih-lek-troh-en- SEF-uh-luh-gram) (EEG)	Measures the electrical activity of the brain, using electrodes that are put on the patient's scalp. Sometimes patients sleep during the test.
Electrocardiogram (ih-lek-troh-KAHR- dee-uh-gram) (EKG or ECG)	Records the electrical activity of the heart, using electrodes placed on the arms, legs, and chest.
Exercise stress test	Electrodes are placed on the chest, arms, and legs to record the heart's activity. A blood pressure cuff is placed around the arm and is inflated every few minutes. Heart rate and blood pressure are taken before exercise starts. The patient walks on a treadmill or pedals a stationary bicycle. The pace of the treadmill is increased. The response of the heart is monitored. The test continues until target heart rate is reached. Monitoring continues after exercise for 10 to 15 minutes or until the heart rate returns to normal.
Fecal occult blood test (FOBT)	Detects hidden blood in a bowel movement. There are two types: the smear test and flushable reagent pads.

### **Common Screening and Diagnostic Tests Explained**

Test Name	Definition
Laparoscopy (lap-uh-ROSS-kuh-pee)	A small tube with a camera is inserted into the abdomen through a small cut in or just below the belly button to see inside the abdomen and pelvis. Other instruments can be inserted in the small cut as well. It is used for both diagnosing and treating problems inside the abdomen.
Magnetic resonance imaging (MRI)	A test that uses powerful magnets and radio waves to create a picture of the inside of your body without surgery. The patient lies on a table that slides onto a large tunnel-like tube, which is surrounded by a scanner. Small coils may be placed around your head, arm, leg, or other areas.
Mammogram	X-rays of the breast taken by resting one breast at a time on a flat surface that contains an x-ray plate. A device presses firmly against the breast. An x-ray is taken to show a picture of the breast. Mammography is used to screen healthy women for signs of breast cancer. It can also be used to evaluate a woman who has symptoms of disease. It can, in some cases, detect breast cancers before you can feel them with your fingers.
Medical history	The doctor or nurse talks to the patient about current and past illnesses, surgeries, pregnancies, medications, allergies, use of alternative therapies, vitamins and supplements, diet, alcohol and drug use, physical activity, and family history of diseases.
Pap test	The nurse or doctor uses a small brush to take cells from the cervix (opening of the uterus) to look at under a microscope in a lab.
Pelvic exam	A doctor or nurse asks about the patient's health and looks at the vaginal area. The doctor or nurse checks the fallopian tubes, ovaries, and uterus by putting two gloved fingers inside the vagina. With the other hand, the doctor or nurse will feel from the outside for any lumps or tendemess.
Physical exam	The doctor or nurse will test for diseases, assess your risk of future medical problems, encourage a healthy lifestyle, and update your vaccinations.
Positron emission tomography (PET) scan (POZ-Ih-tron Ih-MISH-uhn tuh-MOG-ruhfee)	The patient is injected with a radioactive substance, such as glucose. A scanner detects any cancerous areas in the body. Cancerous tissue absorbs more of the substance and looks brighter in images than normal tissue.
Sigmoidoscopy (sig-moi-DOSS-kuh-pee)	The sigmoidoscope is a small camera attached to a flexible tube. This tube, about 20 inches long, is gently inserted into the colon. As the tube is slowly removed, the lining of the bowel is examined.
Spirometry (spy-RAH-me-tree)	The patient breathes into a mouthpiece that is connected to an instrument called a spirometer. The spirometer records the amount and the rate of air that is breathed in and out over a specified time. It measures how well the lungs exhale.
Ultrasound	A clear gel is put onto the skin over the area being examined. An instrument is then moved over that area. The machine sends out sound waves, which reflect off the body. A computer receives these waves and uses them to create pictures of the body.

Note: Anesthesia (medicine to block pain or sedate you) is given during some of these tests to keep you comfortable. Be sure to talk with your doctor or nurse about what to expect during and after tests, and how to prepare for tests.

#### **General Screenings and Immunizations for Women**

These charts are guidelines only. Your doctor will personalize the timing of each test and immunization to meet your health care needs.

Screening Tests	Ages 18-39	Ages 40-49	Ages 50-64	Ages 65 and Older
General Health: Full checkup, includ- ing weight and height	Discuss with your doctor or nurse.	Discuss with your doctor or nurse.	Discuss with your doctor or nurse.	Discuss with your doctor or nurse.
Thyroid test (TSH)	Start at age 35, then every 5 years	Every 5 years	Every 5 years	Every 5 years
Heart Health: Blood pressure test	At least every 2 years	At least every 2 years	At least every 2 years	At least every 2 years
Cholesterol test	Start at age 20, discuss with your doctor or nurse.	Discuss with your doctor or nurse.	Discuss with your doctor or nurse.	Discuss with your doctor or nurse.
Bone Health: Bone mineral density test		Discuss with your doctor or nurse.	Discuss with your doctor or nurse.	Get a bone mineral density test at least once. Talk to your doctor or nurse about repeat testing.
Diabetes: Blood glucose test	Discuss with your doctor or nurse.	Start at age 45, then every 3 years	Every 3 years	Every 3 years
Breast Health: Mammogram (x-ray of breast)		Every 1-2 years. Discuss with your doctor or nurse.	Every 1-2 years. Discuss with your doctor or nurse.	Every 1-2 years. Discuss with your doctor or nurse.
Reproductive Health: Pap test & pelvic exam	Every 1-3 years if you have been sexu- ally active or are older than 21	Every 1-3 years	Every 1-3 years	Discuss with your doctor or nurse.
Chlamydia test	Yearly until age 25 if sexually active. Older than age 25, get this test if you have new or multiple partners.	Get this test if you have new or multiple partners.	Get this test if you have new or multiple partners.	Get this test if you have new or multiple partners.
Sexually transmitted disease (STD) tests	Both partners should get tested for STDs, including HIV, before initiating sexual inter- course.	Both partners should get tested for STDs, including HIV, before initiating sexual inter- course.	Both partners should get tested for STDs, including HIV, before initiating sexual inter- course.	Both partners should get tested for STDs, including HIV, before initiating sexual inter- course.
Mental Health Screening	Discuss with your doctor or nurse.	Discuss with your doctor or nurse.	Discuss with your doctor or nurse.	Discuss with your doctor or nurse.
Colorectal Health: Fecal occult blood test			Yearly	Yearly
Flexible sigmoidos- copy (with fecal occult blood test is preferred)			Every 5 years (if not having a colonoscopy)	Every 5 years (if not having a colonoscopy)

This chart lists recommended screenings and immunizations for women at average risk for most diseases. Citations for these record of the second online at www.womenshealth.gov/screeningsharts/general/citations.cfm.

### **General Screenings and Immunizations for Women**

These charts are guidelines only. Your doctor will personalize the timing of each test and immunization to meet your health care needs.

Screening Tests	Ages 18-39	Ages 40-49	Ages 50-64	Ages 65 and Older
Colorectal Health (continued): Double Contrast Bari- um Enema (DCBE)			Every 5-10 years (if not having a colonoscopy or sigmoidoscopy)	Every 5-10 years (if not having a colonoscopy or sigmoidoscopy)
Colonoscopy			Every 10 years	Every 10 years
Rectal exam	Discuss with your doctor or nurse.	Discuss with your doctor or nurse.	Every 5-10 years with each screening (sig- moidoscopy, colonos- copy, or DCBE)	Every 5-10 years with each screening (sig- moidoscopy, colonos- copy, or DCBE)
Eye and Ear Health: Eye exam	If you have any visual problems or at least one exam from ages 20-29 and at least two exams from ages 30-39.	Every 2-4 years	Every 2-4 years	Every 1-2 years
Hearing test	Starting at age 18, then every 10 years	Every 10 years	Every 3 years	Every 3 years
Skin Health: Mole exam	Monthly mole self- exam; by a doctor every 3 years, starting at age 20.	Monthly mole self- exam; by a doctor every year.	Monthly mole self- exam; by a doctor every year.	Monthly mole self- exam; by a doctor every year.
Oral Health: Dental exam	One to two times every year	One to two times every year	One to two times every year	One to two times every year
Immunizations: Influenza vaccine	Discuss with your doctor or nurse.	Discuss with your doctor or nurse.	Yearly	Yearly
Pneumococcal vaccine				One time only
Tetanus-diphtheria booster vaccine	Every 10 years	Every 10 years	Every 10 years	Every 10 years
Human papillomavirus vaccine (HPV)	Up to age 26, discuss with your doctor or nurse.			
Meningococcal vacine	Discuss with your doctor or nurse if attending college.			
Herpes zoster vaccine (to prevent shingles)			Starting at age 60, one time only. Ask your doctor if it is okay to get it.	Starting at age 60, one time only. Ask your doctor if it is okay to get it.

This chart lists recommended screenings and immunizations for women at average risk for most diseases. Citations for these recommendations can be found online at www.womenshealth.gov/screeningcharts/general/citations.cfm.

# Recommended Screenings, Tests, and Immunizations for Women with High-Risk Factors in the Family

✓ if it applies	Does your family history include?	Then ask your doctor or nurse if you need the follow- ing screenings, tests, exams, or vaccines more often or at a younger age:
	High blood pressure	Blood pressure test
	High cholesterol	Cholesterol test
	Heart disease, premature heart disease, or heart attack	Blood pressure test, cholesterol test, exercise stress test
	Diabetes	Blood glucose test
	Breast cancer	Mammogram, ovarian cancer tests
	Endometrial cancer	Colon screening
	Ovarian cancer	Pelvic exam, ovarian cancer tests, colon screening, clinical breast exam
	Osteoporosis, bone fracture in adulthood	Bone mineral density test
	Thyroid disease or thyroid cancer	Thyroid test and/or genetic counseling
	Gum (periodontal) disease	Oral exam
	Hearing problems, deafness	Hearing test
	Vision problems, eye disease, blindness	Vision exam
	Inflammatory bowel disease; colon polyps; colon, ovarian, or endometrial cancer	Colonoscopy, sigmoidoscopy, DCBE, rectal exam, fecal occult blood test, pap test, pelvic exam, ovarian cancer tests
	Cancer, heart disease, or any illness at an unusually young age (50 or younger)	Genetic counseling, possible early screening tests
	Two relatives with the same kind of cancer	Genetic counseling, possible early screening tests
	Birth defects or genetic disorder (you or your partner)	Genetic counseling, possible early screening tests. If you want to become pregnant, genetic counseling for you and your partner.

This chart lists screenings, tests, or exams you might need more often or earlier because of having high-risk factors or things in your life that increase your chances of developing a condition or disease. Citations for these recommendations can be found online at www.womenshealth.gov/screeningcharts/highrisk/citations.cfm.

# **Recommended Screenings, Tests, and Immunizations for Women with High Individual Risk Factors**

✓ if it applies	Are You?	Then ask your doctor or nurse if you need the fol- lowing screenings, tests, exams, or vaccines more often or at a younger age:
	African American	Blood pressure test, cholesterol test, blood glucose test, vision exam, colonoscopy, genetic counseling for sickle cell anemia
	Latina	Blood pressure test, cholesterol test, blood glucose test, colonoscopy
	Alaska Native or Pacific Islander	Blood glucose test, pneumococcal vaccine
	American Indian	Blood glucose test, pneumococcal vaccine
	Ashkenazi Jewish descent	Genetic counseling for Tay-Sachs disease, if you want to become pregnant
	Ashkenazi Jewish with family history of breast or ovar- ian cancer	Genetic counseling for possible BRCA1/2 mutation
	Asian American	Blood glucose test
	Age 65 or older	Bone mineral density test, flu vaccine, pneumococcal vaccine
	Between the ages of 60 and 64, weigh fewer than 154 lbs., and not taking estrogen	Bone mineral density test
	College age	MMR vaccine, varicella vaccine, human papillomavirus (HPV) vaccine, meningococcal vaccine
	Postmenopausal	Bone mineral density test
	Pregnant	Blood pressure test, blood glucose test, urine test, HIV test, STD tests, MMR vaccine, hepatitis B antigen test
	A non-pregnant woman of childbearing age	MMR vaccine, varicella vaccine
	A smoker	Blood pressure test, cholesterol test, bone mineral density test, oral exam, vision exam
	Overweight	Blood pressure test, blood glucose test, weight
	Living in prison	Tuberculosis (TB) test, HIV test, STD tests, hepatitis A, B vaccines
	Living in long-term care	TB test, influenza vaccine, pneumococcal vaccine
	A health care worker	TB test, influenza vaccine, pneumococcal vaccine, MMR vaccine, varicella vaccine, HIV test, hepatitis test, hepatitis B vaccine if exposed to blood

This chart lists screenings, tests, or exams you might need more often or earlier because of having high-risk factors or things in your life that increase your chances of developing a condition or disease. Citations for these recommendations can be found online at www.womenshealth.gov/screeningcharts/highrisk/citations.cfm.

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# Recommended Screenings, Tests, and Immunizations for Women with High Individual Risk Factors

✓ if it applies	Do you have or have you had?	Then ask your doctor or nurse if you need the fol- lowing screenings, tests, exams, or vaccines more often or at a younger age:
	High blood pressure	Blood pressure test, cholesterol test, blood glucose test
	High cholesterol	Blood pressure test, cholesterol test, blood glocose test
	Heart disease	Blood pressure test, cholesterol test, blood glucose test, influenza vaccine, pneumococcal vaccine
	Diabetes	Blood pressure test, cholesterol test, blood glucose test, vision exam, urine test
	Gestational diabetes (diabetes during pregnancy)	Blood glucose test
	A baby weighing more than 9 lbs.	Blood glucose test
	Breast cancer	Mammogram, ovarian cancer tests
	Dense breast	Digital mammogram, clinical breast exam
	Cervical, uterine, endometrial, vaginal cancer	Pap test, pelvic exam, ovarian cancer tests, colon screening
	Ovarian cancer	Pelvic exam, ovarian cancer tests, mammogram, colon screening
	Previous abnormal Pap tests	Pap test, pelvic exam, human papillomavirus (HPV) vaccine
	Early menopause (natural or surgically induced); absent or infrequent menstrual periods; advanced age; a personal history of bone fracture in adulthood; lifelong low calcium intake; lifelong inactive lifestyle or little physical activity; low body weight (fewer than 154 lbs.), or a history of an eating disorder such as anorexia nervosa	Bone mineral density test
	An autoimmune disease (including lupus, rheumatoid arthritis, scleroderma, multiple sclerosis, psoriasis)	Thyroid test, TB test, influenza shot, MMR vaccine, pneumococcal vaccine, autoimmune screening test, bone mineral density test

This chart lists screenings, tests, or exams you might need more often or earlier because of having high-risk factors or things in your life that increase your chances of developing a condition or disease. Citations for these recommendations can be found online at www.womenshealth.gov/screeningcharts/highrisk/citations.cfm.

# **Recommended Screenings, Tests, and Immunizations for Women with High Individual Risk Factors**

✓ If it applies	Do you have or have you had?	Then ask your doctor or nurse if you need the follow- ing screenings, tests, exams, or vaccines more often or at a younger age:
	Chronic lung disease	Influenza vaccine, pneumococcal vaccine
	Chronic liver disease	Hepatitis A, B vaccines
	Thyroid disease	Thyroid test, influenza vaccine, pneumococcal vaccine, bone mineral density test (if hyperthyroid)
	Gum (periodontal) disease	Oral exam
	Colon polyps; inflammatory bowel disease	Colonoscopy
	Colon cancer	Endometrial cancer screening, colon cancer screening tests
	A developmental delay	Vision exam, hearing test
	Eye injury or disease	Vision exam
	Ear injury or prolonged exposure to loud noise	Hearing test
	HIV/AIDS	Oral exam, vision exam, Pap test, pelvic exam, TB test, thyroid test, STD tests, influenza vaccine, pneumococcal vaccine, hepatitis screening, hepatitis A and B vaccines
	A blood transfusion or solid organ transplant before 1992	Hepatitis C test
	Received clotting factor concentrates made before 1987	Hepatitis C test
	A blood transfusion before 1985	HIV test
	Multiple sex partners (or a partner who has or had multiple sex partners)	STD tests, HIV test, hepatitis B vaccine, Pap test, pel- vic exam, human papillomavirus (HPV) vaccine
	Alcoholism	Pneumococcal vaccine, TB test, psychological screening, liver tests
	Injection drug use (IDU) or addiction	Hepatitis A and B vaccines, hepatitis C test, TB test, STD tests, HIV test, psychological screening
	A sexually transmitted disease (STD)	STD tests, HIV test, Pap test, pelvic exam, hepatitis B vaccine, human papillomavirus (HPV) vaccine
	Lived or worked with someone exposed to tuberculosis (TB)	TB test
	A serious injury (cut or laceration)	Tetanus-diphtheria booster vaccine
	A baby recently (within the last few weeks or months)	Postpartum depression screening

This chart lists screenings, tests, or exams you might need more often or earlier because of having high-risk factors or things in your life that increase your chances of developing a condition or disease. Citations for these recommendations can be found on-line at www.womenshealth.gov/screeningcharts/highrisk/citations.cfm.



### Health Resources for Women

#### **General Health**

#### womenshealth.gov

8270 Willow Oaks Corporate Dr Fairfax, VA 22031

Web site: www.womenshealth.gov

Illnesses and Disabilities:

www.womenshealth.gov/wwd Phone number: (800) 994-9662,

(888) 220-5446 TDD

### Agency for Healthcare Research and Quality

PO Box 8547

Silver Spring, MD 20907-8547 Web site: www.ahrq.gov/research/

womenix.htm

Phone number: (800) 358-9295

#### CDC Office of Women's Health

1600 Clifton Rd, MS E-89

Atlanta, GA 30333

Web site: www.cdc.gov/women Phone number: (800) 232-4636

#### ClinicalTrials.gov

Clinical Trials.gov is a registry of clinical trials. The Web site gives you information about a trial's purpose, who may participate, locations, and phone numbers for more details.

Web site: clinicaltrials.gov

#### FDA Office of Women's Health

5600 Fishers Ln

Rockville, MD 20857

Web site: www.fda.gov/womens Phone number: (888) 463-6332

### Health Resources and Services Administration

PO Box 2910

Merrifield, VA 22116

Web site: www.hrsa.gov/WomensHealth

Phone number: (888) 275-4772,

(877) 489-4772 TTY

#### Indian Health Service

801 Thompson Ave, Suite 400 Rockville, MD 20852 Web site: www.ihs.gov/

MedicalPrograms/MCH/W

#### MedlinePlus

MedlinePlus provides health information from the National Institutes of Health and other trusted sources. The Web site also has a medical encyclopedia, information on prescription and nonprescription drugs, and the latest health news.

Web site: http://medlineplus.gov

#### National Institutes of Health

9000 Rockville Pike Bethesda, MD 20892 Web site: www.nih.gov

#### Office of Minority Health Resource Center

PO Box 37337

Washington, DC 20013-7337

Web site: www.omhrc.gov

Phone number: (800) 444-6472

### Office of Research on Women's Health, NIH

6707 Democracy Blvd, Suite 400 Bethesda, MD 20892-5484 Web site: http://orwh.od.nih.gov Phone number: (301) 402-1770

#### American Academy of Family Physicians

PO Box 11210 Shawnee Mission, KS 66207-1210 Web site: http://familydoctor.org

### American College of Obstetricians and Gynecologists

409 12th St SW, PO Box 96920 Washington, DC 20090-6920 Web site: www.acog.org Phone number: (202) 863-2518

### American Medical Women's Association

100 N 20th St, 4th Floor Philadelphia, PA 19103-1443 Web site: www.amwa-doc.org

#### Black Women's Health Imperative 1420 K St NW, Suite 1000 Washington, DC 20005 Web site: www.blackwomenshealth.org

National Alliance for Hispanic Health 1501 16th St NW Washington, DC 20036 Web site: www.hispanichealth.org

#### National Asian Women's Health Organization

One Embarcadero Center, Suite 500 San Francisco, CA 94111 Web site: www.nawho.org



#### National Women's Health Network 514 10th St NW, Suite 400 Washington, DC 20004 Web site: www.nwhn.org Phone number: (202) 628-7814

#### National Women's Health Resource Center

157 Broad St, Suite 315 Red Bank, NJ 07701 Web site: www.healthywomen.org Phone number: (877) 986-9472

Society for Women's Health Research 1025 Connecticut Ave NW, Suite 701 Washington, DC 20036 Web site: www.womenshealthresearch.org

#### **Disease Risk Calculators**

#### **Heart Disease Risk Assessment Tool**

On this Web site, find out if you are at risk of having a heart attack or dying from coronary heart disease in the next 10 years. You can also check to see if you may have a group of risk factors that increase your chances of developing heart disease, stroke, and diabetes.

Web site: www.americanheart.org/presenter.jhtml?identifier=3003499

#### Your Disease Risk

This Web site allows you to find out your risk of developing cancer, diabetes, heart disease, osteoporosis, and stroke. You can also get personalized tips for preventing these diseases.

Web site: www.yourdiseaserisk.wustl.edu

#### **Assess Your Risk for Periodontal Disease**

Find out if you are at risk for developing periodontal, or gum, diseases on this Web site.

Web site: www.perio.org/consumer/4a.html

### Health Resources for Men

#### **General Health**

Men's Health, womenshealth.gov 8270 Willow Oaks Corporate Dr Fairfax, VA 22031 Web site: www.womenshealth.gov/mens Phone number: (800) 994-9662, (888) 220-5446 TDD

#### US Department of Health and Human Services

200 Independence Ave SW Washington, DC 20201 Web site: www.hhs.gov/specificpopulations/#men

### Divisions of HIV/AIDS Prevention, CDC

1600 Clifton Rd NE Atlanta, GA 30333 Web site: www.cdc.gov/hiv Phone number: (800) 232-4636, (888) 232-6348 TTY

#### Healthfinder®

PO Box 1133, Washington, DC 20013-1133 Web site: www.healthfinder.gov/justforyou

#### MedlinePlus, NIH

8600 Rockville Pike Bethesda, MD 20894 Web site: www.nlm.nih.gov/medlineplus/ men.html



#### Men's Health, CDC 1600 Clifton Rd NE Atlanta, GA 30333 Web site: www.cdc.gov/men Phone number: (800) 232-4636, (888) 232-6348 TTY

# Men's Health Program, AHRQ 540 Gaither Rd, Suite 2000 Rockville, MD 20850. Web site: www.ahrq.gov/path/menpath.htm Phone number: (301) 427-1364

### Promoting Responsible Fatherhood, HHS

200 Independence Ave SW Washington, DC 20201 Web site: fatherhood.hhs.gov

#### Men's Health Network

PO Box 75972

Washington, DC 20013

Web site: http://menshealthnetwork.org

#### **Heart Health**

### National Heart, Lung, and Blood Institute Information Center, NIH

PO Box 30105

Bethesda, MD 20824-0105

Web site: www.nhlbi.nih.gov,

Phone number: (301) 592-8573,

(240) 629-3255 TTY

#### American Heart Association

7272 Greenville Ave Dallas, TX 75231

Web site: www.americanheart.org

Phone number: (800) 242-8721

#### Cancer

#### National Cancer Institute, NIH

6116 Executive Blvd, Room 3036A Bethesda, MD 20892-8322

Web site: www.cancer.gov

Phone number: (800) 422-6237, (800)

332-8615 TTY

#### **American Cancer Society**

1599 Clifton Rd NE

Atlanta, GA 30329

Web site: www.cancer.org

Phone number: (800) 227-2345,

(866) 228-4327 TTY

#### **Mental Health**

### National Clearinghouse for Alcohol and Drug Information, SAMHSA

1 Choke Cherry Rd Rockville, MD 20857

Web site: http://ncadi.samhsa.gov Phone number: (800) 729-6686,

(800) 487-4889 TDD

### National Institute of Mental Health, NIH

6001 Executive Blvd, Room 8184, MSC 9663

Bethesda, MD 20892-9663

Web site: www.nimh.nih.gov Phone number: (866) 615-6464,

(866) 415-8051 TTY

#### National Mental Health Information Center, SAMHSA

PO Box 42557

Washington, DC 20015

Web site: http://mentalhealth.samhsa.

gov

Phone number: (800) 789-2647,

(866) 889-2647 TDD

#### **Urologic and Reproductive Health**

National Kidney and Urologic Diseases Information Clearinghouse

3 Information Way

Bethesda, MD 20892-3580

Web site: www.kidney.niddk.nih.gov

Phone number: (800) 891-5390

### Health Resources for Children

#### **General Health**

girlshealth.gov

8270 Willow Oaks Corporate Dr

Fairfax, VA 22031

Web site: www.girlshealth.gov Phone number: (800) 994-9662,

(888) 220-5446 TDD

### Building Blocks for a Healthy Future, SAMHSA

1 Choke Cherry Rd Rockville, MD 20857

Web site: www.bblocks.samhsa.gov Phone number: (800) 694–4747, ext

4974

#### Child & Adolescent Health, AHRQ

540 Gaither Rd, Suite 2000 Rockville, MD 20850

Web site: www.ahrq.gov/child Phone number: (301) 427-1364

#### US Department of Health and Human Services

200 Independence Ave SW Washington, DC 20201 Web site: www.hhs.gov/specificpopulations

#### Family Guide to Keeping Youth Mentally Healthy and Drug Free, SAMHSA

1 Choke Cherry Rd Rockville, MD 20857 Web site: www.family.samhsa.gov Phone number: (800) 789–2647, (800) 729–6686



### Food and Drug Administration Kid's Page

5600 Fishers Ln Rockville, MD 20857-0001

Web site: www.fda.gov/oc/opacom/kids/default.htm

Phone number: (888) 463-6332

#### Girl Power! Campaign

Web site: www.girlpower.gov Phone number: (800) 729-6686

#### MedlinePlus, NIH

8600 Rockville Pike
Bethesda, MD 20894
Web site: www.nlm.nih.gov/
medlineplus/childrenandteenagers.html

#### My Bright Future: Physical Activity and Healthy Eating for Young Women, HRSA

PO Box 2910 Merrifield, VA 22116 Web site: www.hrsa.gov/womenshealth/ mybrightfuture/menu.html Phone number: (888) 275-4772, (877) 489-4772 TTY

#### Safe and Healthy Kids, CDC

1600 Clifton Rd, MS E-89 Atlanta, GA 30333 Web site: www.cdc.gov/women/kids Phone number: (800) 232-4636, (888) 232-6348 TTY

#### VERB™ It's What You Do, CDC

1600 Clifton Rd Atlanta, GA 30333 Web site: www.verbnow.com Phone number: (800) 232-4636, (888) 232-6348 TTY

#### WISE EARS!®, NIDCD

1 Communication Ave Bethesda, MD 20892-3456 Web site: www.nidcd.nih.gov/health/ wise Phone number: (800) 241-1044, (800) 241-1055 TTY

#### American Academy of Pediatrics

141 Northwest Point Blvd Elk Grove Village, IL 60007 Web site: www.aap.org

#### Kidshealth.org

1600 Rockland Rd Wilmington, DE 19803 Web site: www.kidshealth.org

#### **Child Abuse**

Prevent Child Abuse America

500 N Michigan Ave, Suite 200 Chicago, IL 60611

Web site: www.preventchildabuse.org Phone number: (800) 244-5373

#### Cancer

National Cancer Institute, NIH

6116 Executive Blvd, Room 3036A Bethesda, MD 20892-8322 Web site: www.cancer.gov Phone number: (800) 422-6237, (800) 332-8615 TTY

#### **Childhood Asthma**

American Lung Association

61 Broadway, 6th Floor New York, NY 10006 Web site: www.lungusa.org

Phone number: (800) 548-8252

#### **Childhood Diabetes**

National Diabetes Information Clearinghouse, NIDDK, NIH

1 Information Way Bethesda, MD 20892-3560

Web site: www.diabetes.niddk.nih.gov Phone number: (800) 860-8747

#### American Diabetes Association

1701 N Beauregard St Alexandria, VA 22311 Web site: www.diabetes.org Phone number: (800) 342-2383

#### **Immunizations**

National Center for Immunization and Respiratory Diseases, CDC

1600 Clifton Rd NE, Mailstop E-05 Atlanta, GA 30333

Web site: www.cdc.gov/vaccines Phone number: (800) 232-4636, (888) 232-6348 TTY

### Childhood Immunization Support Program, AAP

141 Northwest Point Blvd Elk Grove Village, IL 60007 Web site: www.cispimmunize.org

#### Immunization Action Coalition

1573 Selby Ave, Suite 234 St Paul, MN 55104 Web site: www.immunize.org

#### **Child Nutrition**

School Meals, Food & Nutrition Service, USDA

3101 Park Center Dr Alexandria, VA 22302 Web site: www.fns.usda.gov/cnd

#### Powerful Bones. Powerful Girls.

5600 Fishers Ln, Room 16A55 Rockville, MD 20857 Web site: www.cdc.gov/powerfulbones

#### Safety and Injury Prevention National Center for Injury Prevention and Control, CDC

Atlanta, GA 30341-3717
Web site: www.cdc.gov/ncipc
Phone number: (800) 232-4636,
(888) 232-6348 TTY

#### National Highway Traffic Safety Administration

1200 New Jersey Ave SE, West Building Washington, DC 20590 Web site: www.nhtsa.gov Phone number: (888) 327-4236, (800) 424-9153 TTY

#### Playground Safety Publications, CPSC

4330 East West Highway Bethesda, MD 20814 Web site: www.cpsc.gov/cpscpub/pubs/ playpubs.html Phone number: (800) 638-2772, (800) 638-8270 TTY

### Take A Stand. Lend A Hand. Stop Bullying Now!, HRSA

PO Box 2910 Merrifield, VA 22116 Web site: http://stopbullyingnow.hrsa.gov Phone number: (888) 275-4772, (877) 489-4772 TTY

#### Safe Kids Worldwide

1301 Pennsylvania Ave NW, Suite 1000 Washington DC 20004 Web site: www.safekids.org

### Resources for Health Insurance

Each year, more American families find themselves without health insurance. In 2004, more than 45 million Americans didn't have health insurance. Sixteen million of them were women. These programs and resources may be able to help you and your family.

#### Government Resources That Can Help

The Centers for Medicare and Medicaid Services (CMS), a federal government agency, administers health insurance programs such as Medicare, Medicaid, and the State Children's Health Insurance Program.

#### Medicare

Medicare is a health insurance program funded by the U.S. government. To qualify for these benefits, you must be 65 years old or older, or younger than 65 with certain disabilities, or a person of any age who has end-stage renal disease. (A person who has end-stage renal disease has permanent kidney failure that requires dialysis or a kidney transplant.)

Medicare has several parts. Your coverage depends on which parts of Medicare you have. Medicare Part A typically pays for your inpatient hospital expenses. Medicare Part B typically pays for your outpatient healthcare expenses, including doctor fees. You usually have to pay a monthly premium to be covered by Medicare Part B.

Beginning January 1, 2006, everyone who has Medicare is now eligible for



prescription drug coverage through the new Medicare Part D. This coverage is available regardless of your income and resources, your health status, or how much your prescriptions cost. It covers both brand-name and generic prescription drugs at participating pharmacies in your area. Medicare prescription drug coverage provides protection for people who have very high drug costs.

For general information, 24 hours a day, 7 days a week,

- Call toll-free at 1-800-MEDICARE (1-800-633-4227) or TTY 1-877-486-2048.
- Web site: www.cms.hhs.gov/home/ medicare.asp
- Web site: The Official U.S. Government Site for People with Medicare: www.medicare.gov

If you have a limited income and resources, you may be eligible for extra help with your prescription drug costs. Almost 1 in 3 people with Medicare

qualify for having almost all of their prescription drug costs paid for by the program. To find out if you are eligible for extra help, contact the Social Security Administration.

- Call the U.S. Social Security Administration toll-free at 1-800-772-1213 (TTY 1-800-325-0778).
- Web site: www.socialsecurity.gov

#### Medicaid

Medicaid is a health insurance program jointly funded by states, counties, and the U.S. government. Medicaid provides medical benefits to groups of low-income people that meet certain age, income, and resource requirements. People who have certain medical conditions such as blindness or who are pregnant may also qualify. Whether a person is eligible for Medicaid depends on the state where he or she lives.

In general, you should apply for Medicaid if your income is low and you or



someone in your family needs health care. A qualified caseworker in your state can give you guidance about your situation. Your child may be eligible for coverage, even if you are not.

To find out more about Medicaid in your state,

 Call the toll-free number for your state. A list of toll-free numbers can be reached through the CMS web site at www.cms.hhs.gov/medicaid/consumer. asp.

### State Children's Health Insurance Program (SCHIP)

Like Medicaid, the State Children's Health Insurance Program (SCHIP) is a partnership between the federal government and the states. SCHIP is designed to provide health insurance coverage to specific groups of low-income children. Families who earn too much money to be eligible for Medicaid but not enough money to purchase private health insurance may be eligible to get health insurance for their children.

Each state determines how its program is designed, who is eligible, what the benefits are, how costs are shared, and other features. For little or no cost, this insurance pays for children's doctor visits, immunizations, hospitalizations, and emergency room visits.

For more information about SCHIP, go to their website at www.cms.hhs.gov/home/schip.asp.

To learn whom you should contact in your state or to read specific information about eligibility in your state, go to Insure Kids Now at www.insurekidsnow.gov.



### Other Government Programs and Benefits

To learn about the government benefits you may be entitled to,

- Call toll-free at 1-800-FED-INFO (1-800-333-4636). Calls are answered Monday through Friday, 8 a.m. to 8 p.m., Eastern Standard Time.
- Web site: www.govbenefits.gov

### Other Public Government and Private Resources That Can Help

For women who make too much money to qualify for these federal and state programs but who can't afford to pay for health insurance or costly health services, the choices are limited and difficult. Public and private resources may be able to help.

- "Safety-net" facilities. Community health centers, public hospitals, school-based centers, public housing primary care, and special need facilities. Contact your local or state health department for more information or go to ask.hrsa.gov/pc.
- Free clinics. Free clinics provide healthcare services for the uninsured.
- Prescription drug assistance. Some states provide prescription drug assistance to women who cannot get Medicaid. Many drug companies will work with your doctor to provide free medicines to those in need. A list of resources can be found at www.disabilityresources.org/RX.html.
- Women with cancer. Women with cancer can find help through a variety of government-sponsored and volunteer organizations. For accurate, up-to-date information on cancer and resources for people dealing with cancer, go to the web site of the National Cancer Institute (www.cancer. gov). You can also visit the Cancer Information Service of the National Cancer Institute on the Internet (cis. nci.nih.gov). To get answers to specific questions about cancer, call them at 1-800-4-CANCER (1-800-422-6237), Monday through Friday, 9:00 a.m. to 4:30 p.m. You can speak with a Cancer Information specialist. Deaf and hard of hearing callers with TTY equipment can call 1-800-332-8615.
- Women with HIV. The federal Ryan White CARE Act funds healthcare services for women with HIV/AIDS who do not have health insurance or

the financial resources to pay for care. To locate a CARE provider, contact your local or state health department or call 1-800-994-9662.

- Group health insurance. Some states and localities, labor unions, professional clubs, associations, and organizations offer low-cost group health insurance to its members. These plans usually cost less than individual insurance and can be worth considering.
- Temporary insurance. Some individuals who have been denied health insurance because of a medical condition may be able to obtain coverage through their state's "risk pools." More than 30 states provide this temporary insurance assistance. For more information, go to the web site of Health-Insurance.org at www.healthinsurance. org/riskpoolinfo.html.

### Protect Your Health Insurance Coverage

If you have health insurance, you should know how to protect that insurance coverage. If you are losing your health insurance because you have lost your job, have reduced hours at work, have gotten a divorce, or have had your spouse die, you have certain rights and protections. These rights are described in the Health Insurance Portability and Accountability Act of 1996, or HIPAA.

#### Tips: What To Do

 Obtain proof that you had previous health insurance coverage from your employer.

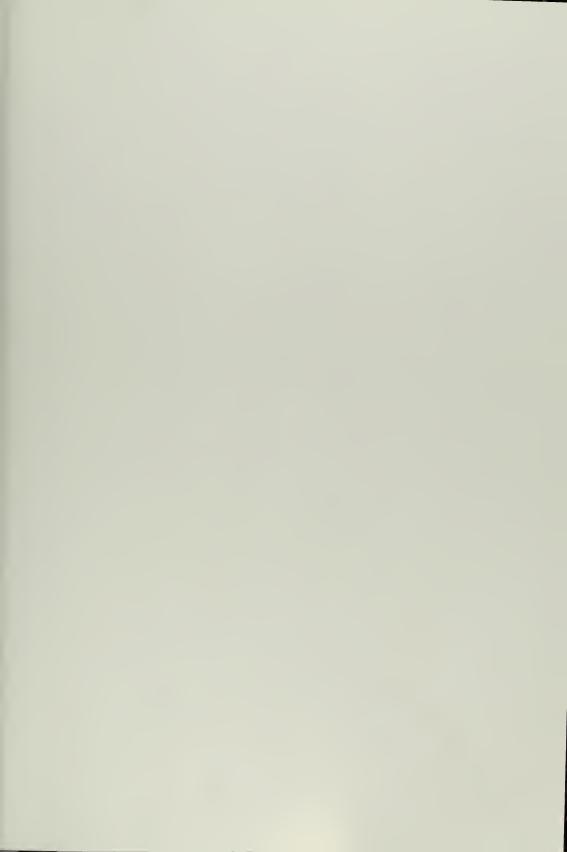
- Apply for COBRA, which stands for the Consolidated Omnibus Budget Reconciliation Act of 1985. COBRA requires most employers that have 20 or more employees to allow you to continue your health insurance for 18 months, but you must pay the full premium cost of the insurance. Ask your employer's human resources office about when and how you should apply for these benefits.
- Consider your health insurance situation carefully before agreeing to certain terms and conditions. It is especially important to think about your healthcare needs when you are separated from your spouse, divorced, or are a retiree with annuities.
- In a legal separation or divorce proceeding, you can get a court order
  to provide your children with health
  insurance under the health plan of the
  noncustodial parent. This act is called a
  qualified medical child support order.
- Act quickly to get the right information to protect you and your family.
   File any required forms promptly.
   Strict time limits often apply.

For more information about HIPAA,

- Call 1-866-627-7748.
- Web site: www.cms.hhs.gov/ HIPAAGenInfo

For more information on health insurance choices, go to the web site of the Agency for Healthcare Research and Quality at www.ahrq.gov/consumer.





The Healthy Woman: A Complete Guide for All Ages provides women with a wide array of information to help them take charge of their health. From the Nation's leaders in women's health, the Guide covers topics ranging from violence against women to cancer, providing easy-to-understand explanations as well as practical tips. Readers will also find personal health stories from women around the country, charts showing which medical tests are needed and when, and ways to find more helpful information. As the gatekeepers of their family's health, women will also find resources for caring for the men and children in their lives. Whether you are searching for ways to manage a health problem or prevent one—for you or someone you love—The Healthy Woman: A Complete Guide for All Ages has it all.

#### Read what others had to say about The Healthy Woman:

"This comprehensive resource is a must for today's woman. It offers important health tips and information on a wide range of topics—I highly recommend it for my patients and their loved ones."

–Jean Thompson, M.D.

"Easy to read, visually appealing, and full of resources, tips, and valuable information about health issues affecting women!"

-Denise Smith

"This book is helpful for women looking for healthy lifestyle and disease prevention information, as well as practical tips for managing many conditions."

-Dawn Richards

"No other book offers such one-stop health information for women...the latest health screening recommendations, explanations of medical tests, detailed information on conditions and important issues affecting women...it really is a complete guide!"

-Sophia Jacobson

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The Office on Women's Health (OWH) was established in 1991 within the U.S. Department of Health and Human Services. Its vision is to ensure that "All Women and Girls are Healthier and Have a Better Sense of Well Being." Its mission is to "provide leadership to promote health equity for women and girls through sex/gender-specific approaches." The strategy OWH uses to achieve its mission and vision is through the development of innovative programs, by educating health professionals, and motivating behavior change in consumers through the dissemination of health information. OWH offers extensive health information online at www.womenshealth.gov.